

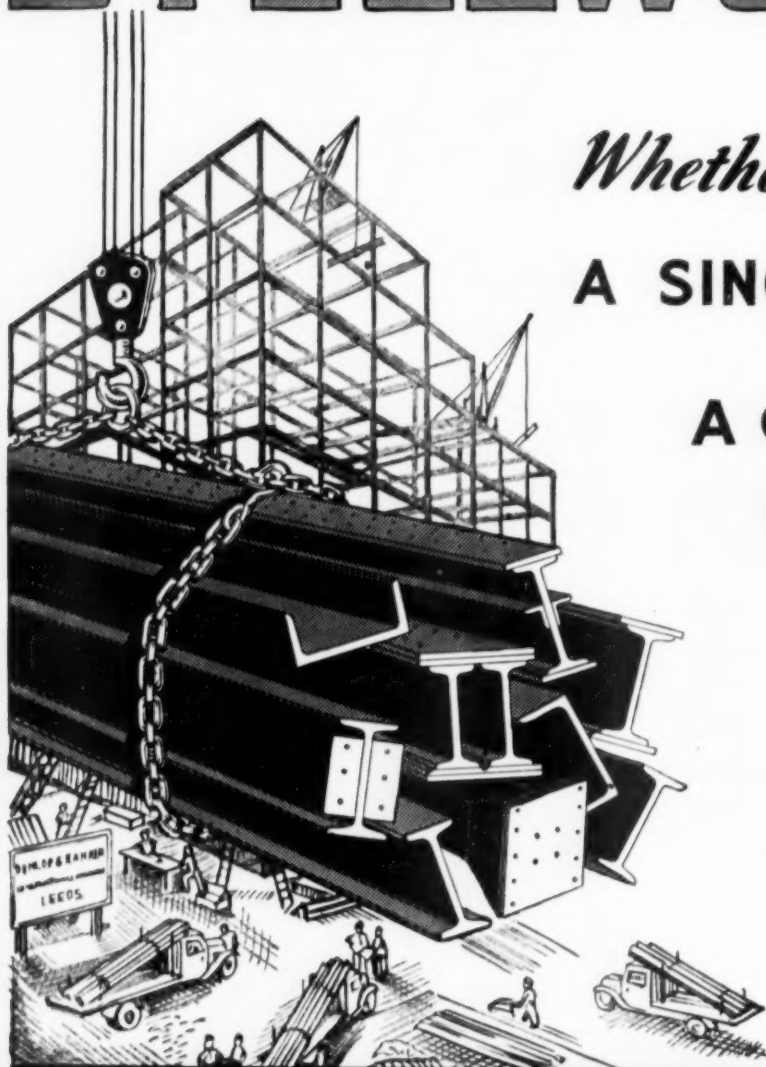
# THE ARCHITECT & BUILDING NEWS

18 NOVEMBER 1954 · VOL. 206 · NO. 21 · ONE SHILLING WEEKLY

- **HALLFIELD ESTATE, BISHOP'S BRIDGE  
ROAD, PADDINGTON**
- **OLD PERSONS' HOME, DUDLEY**

PUBLISHED IN LONDON SINCE 1854

# STEELWORK



*Whether you want*

**A SINGLE JOIST  
OR  
A COMPLETE  
BUILDING**

*J & R*

**D & R**

**STEELWORK  
SERVICE**

# DUNLOP & RANKEN

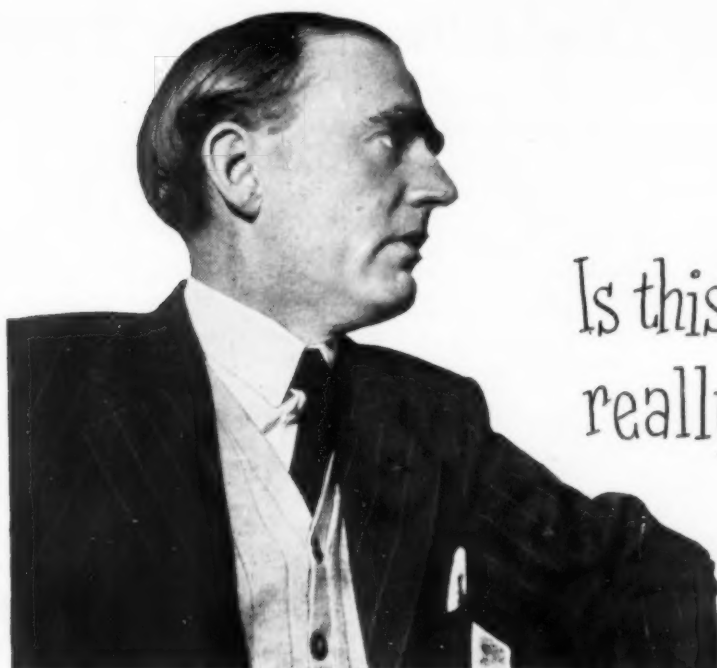
CONSTRUCTIONAL ENGINEERS  
IRON & STEEL STOCKHOLDERS

LTD

TELEPHONE  
27301 (20 LINES)

## LEEDS

TELEGRAMS  
"SECTIONS LEEDS"



Is this advertisement  
really necessary?

Syd Blatern\* will coolly face a berserk Architect. When playing cricket he prefers the nerve-shattering position of opening bat. When he can relax he does so with a good blood and thunder Peter Cheyney novel. But when it comes to facing a camera, Syd Blatern, our South Yorkshire Area Manager, just can't take it. Let his record serve as an introduction. Twenty years with Williams & Williams, seven years as Area Manager, a team of representatives, estimators, draughtsmen and window fixers, imbued with his own Yorkshire philosophy, "People expect service. Give 'em the best." Enough's as good as a feast, he says, shuddering at the thought of being photographed.

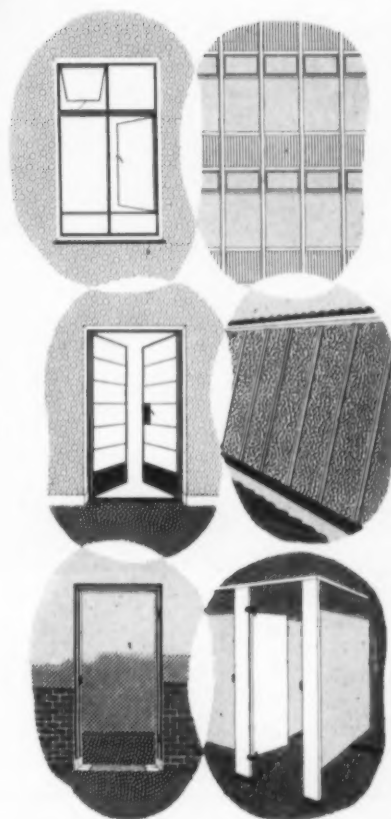
\* **MR. C. S. BLANTERN, WILLIAMS & WILLIAMS LIMITED**  
65 Wolstenholme Road, Sharrow, Sheffield, 7. Sheffield S1594.

**Other offices at:** Belfast (23762) . Birmingham (Shirley 3064)  
Bristol (38907) . Bromley (Ravensbourne 6274) . Cardiff (27092)  
Crawley (2200) . Glasgow (Douglas 0003) . Leeds (21208)  
Liverpool (Central 0325) . London (Sloane 0323)  
Manchester (Blackfriars 9591) . Newcastle-upon-Tyne (21353)  
Newmarket (2277) . Nottingham (52131) . Reading (50291)  
Southampton (26252)

**METAL WINDOWS WILLIAMS & WILLIAMS**



Member of the Metal Window Association



Metal Windows

Metal Doors

Metal Door Frames

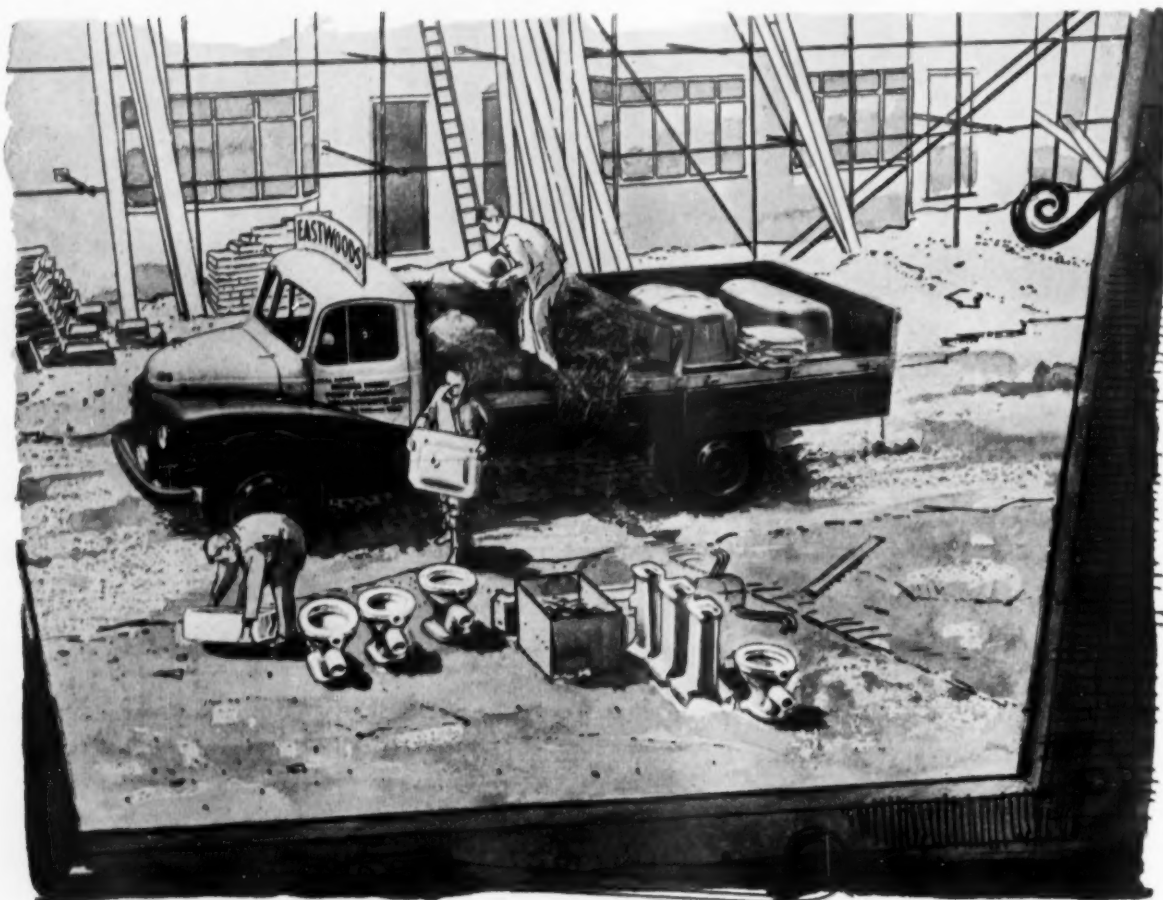
Wallspan Curtain Walling

Aluminex

Raften Toilet Cubicles

## **EASTWOODS** supply and deliver Sanitary Ware

In addition to its very extensive manufacturing activities, Eastwoods also maintain a very comprehensive distributing organisation giving a widely used service to Builders and Contractors. Among the many departments concerned with this aspect of the Eastwoods Service is one which deals with the supply of sanitary ware, either for complete new housing schemes or for installation in existing buildings. Where necessary, advice is available on the type of sanitary ware most suitable for particular purposes and full use is made of the distributing facilities provided by Eastwoods Depots and a modern transport fleet to ensure that the supplies are available when and where they are required. Enquiries for Sanitary Ware can be made either to your nearest Eastwoods Depot Manager, or direct to Eastwoods Sales Ltd., at the Organisation's Head Office in London.



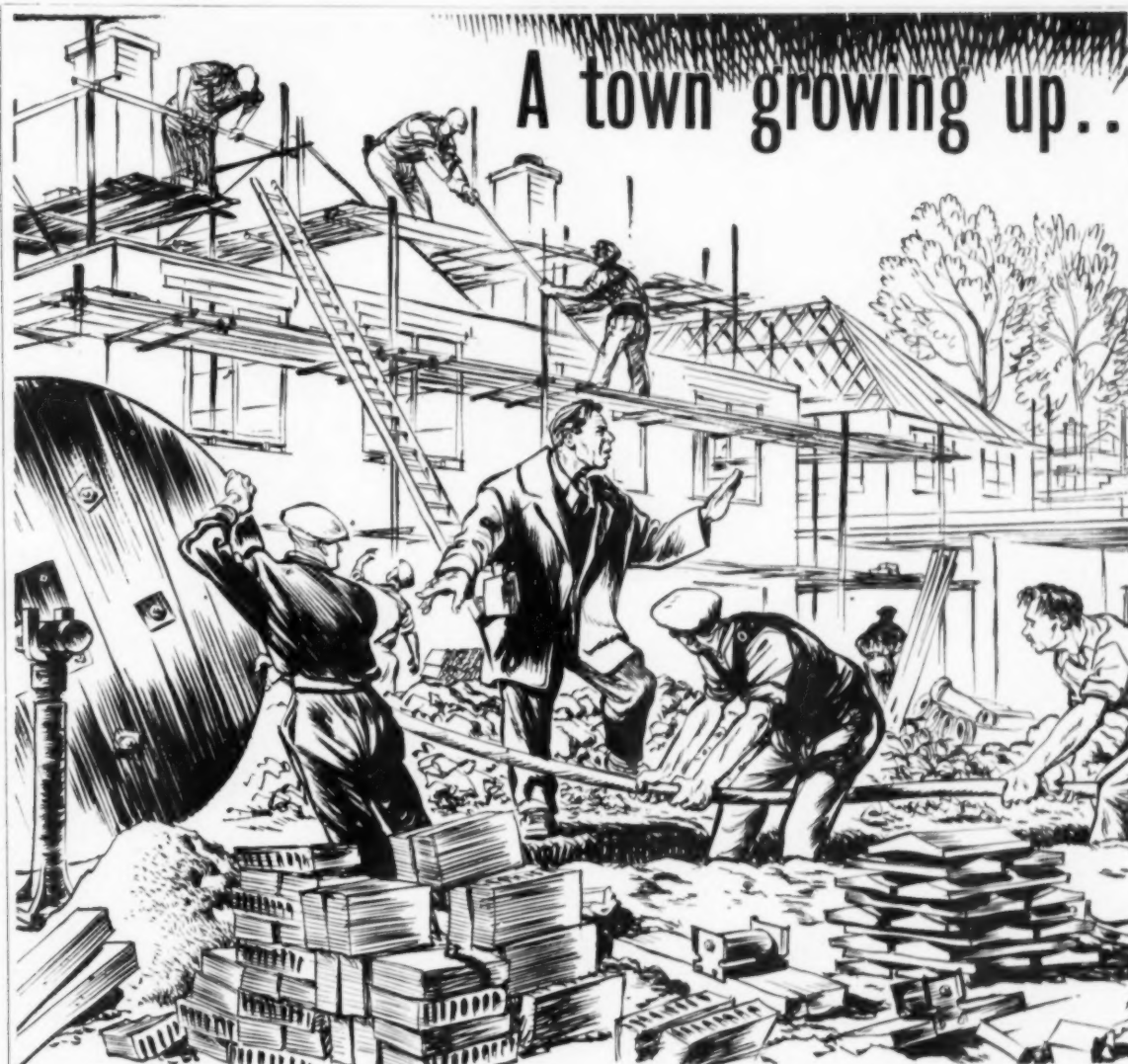
### **EASTWOODS SALES LIMITED**

Head Office: Eastwood House, City Road, London, E.C.1.

Tel. CLErkenwell 2040 (30 lines)

Depots in: LONDON (*Greenwich, Hillingdon, Isleworth, Kingsland, Mortlake, Wandsworth, Waterloo, Wembley*), CAMBRIDGE, COVENTRY, DONCASTER, EASTLEIGH, GILLINGHAM, IPSWICH, LETCHWORTH, NORWICH, SOUTHEND-ON-SEA, SUDBURY (SUFFOLK), WEYBRIDGE.





New houses . . . shops . . . factories on the way. Already the scaffolding is up, cables are being laid. Power cables will carry electricity to serve the new community . . . cables developed by members of the Cable Makers Association.

*By close technical collaboration among its members, the C.M.A. has pioneered the most important developments in electric cable making. That same collaboration makes possible the exceptionally high standards for all types of C.M.A. cable—and safeguards every user.*

SPECIFY **C·M·A** CABLES

The 'Roman Warrior' and letters 'C.M.A.' are

British Registered Certification Trade Marks.

CABLE MAKERS ASSOCIATION, 52/54 HIGH HOLBORN, LONDON, W.C.1

ESTATE  
FOR THE  
HOUSE

# ELLARD

## SLIDING DOOR GEAR

RADIAL  
FOR THE  
GARAGE

FOR  
HOUSING  
ESTATES

FOR THE  
PRIVATE  
RESIDENCE

ESTATE  
FOR THE  
HOUSERADIAL  
FOR THE  
GARAGE

ELLARD Sliding Door Gear is ideally suited for use on large housing estates and for the distinctive private residence. ELLARD "Estate" Gear is silent—easy running—troublefree, and has elegant appearance. ELLARD "Radial" Gear, for garages and out-houses, provides smooth-running action, gives maximum space, and is easy to fix. Both these well-known types of ELLARD Door Gear are moderate in price and immediate delivery can be obtained from large ironmongers and builders' merchants throughout the country.

**CLARKE ELLARD ENGINEERING COMPANY LTD**  
WORKS ROAD • LETCHWORTH • HERTFORDSHIRE

TELEPHONE 613/4

**HALLFIELD  
HOUSING SCHEME  
STAGE 2**

**COMPRISING  
408 FLATS IN 8 BLOCKS**

**IS BEING BUILT BY**

**F G MINTER<sup>LTD</sup>**

**4 BUCKINGHAM GATE · LONDON**

WALTER  
**LAWRENCE**  
& SON LTD.

Contractors for the erection of flats at BISHOP'S BRIDGE  
ROAD HOUSING SCHEME, (STAGE 1), PADDINGTON  
FOR THE METROPOLITAN BOROUGH OF PADDINGTON

*Architects : Drake & Lasdun, A/F.R.I.B.A.*

BUILDING  
CONTRACTORS

Telephone:  
BISHOPSGATE 3763  
6 lines

SUN STREET,  
FINSBURY SQ.,  
E.C.2



## Fire Protection & Thermal Insulation

*together in one economical material!*



*Photographs: Courtesy of  
Pressed Steel Company Ltd., Cowley, Oxford.*

### CELOTEX F.R.I. BOARD

The world renowned thermal insulation of Celotex is now combined with the fire resistance of asbestos to form Celotex Fire Resistant Insulating Board. It's a core of tough, durable Celotex cane fibre insulation sheathed on both sides with asbestos felt, which, if required, can be easily decorated.

Celotex F.R.I. Board is available at a really economical price and is just as easy to use as ordinary Celotex insulation. It's *the* choice for wall, roof and ceiling linings, and for partitions everywhere.

In the B.S. 476  
Spread-of-Flame Test,  
Celotex Fire  
Resistant Insulating Board  
—Rated Class 1  
—showed no spread of  
flame whatsoever!

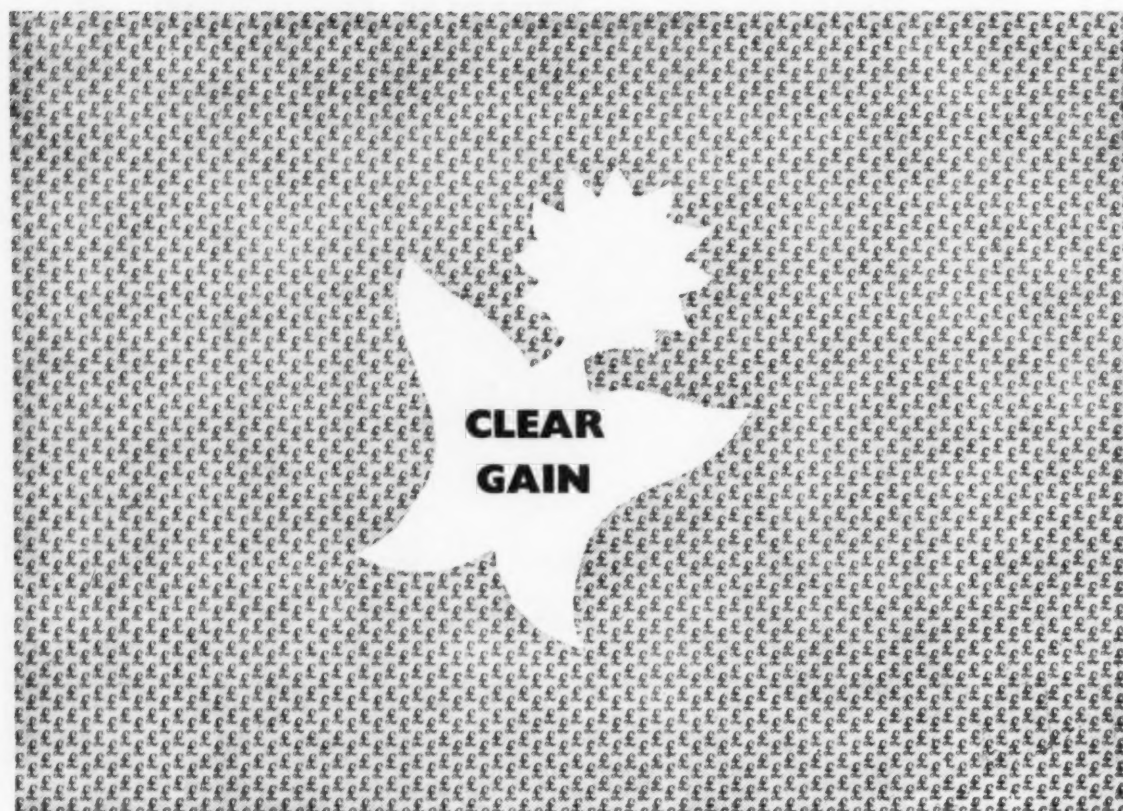
- Core of cane fibre insulation
- Asbestos sheathed on both sides
- Attractive light-reflecting surface
- Can be easily decorated if required

*Write for samples and  
further details of this British-  
made Celotex product.*

*A New* **CELOTEX** *Product*

MADE IN GREAT BRITAIN WITH ALL-BRITISH MATERIALS BY  
CELOTEX LIMITED, STONEBRIDGE PARK, LONDON, N.W.10.

Telephone: ELGar 5717



Gas burns clear and clean. It does not waste its substance in smoke. By the time the gas comes to the burners the smoke has been put to work by the Gas Industry in a hundred different ways, all of them beneficial, all of them contributing to keep down fuel costs.

Apart from fighting unhealthy smog, the filthiest and the most expensive blanket in

all history, gas gives a clear answer to the question: What is the true cost of fuel? A gas bill is for fuel used. Gas needs no special equipment for handling or storage, no replacement stocks, no extra labour to look after these things. Delivery is continuous, of legally guaranteed calorific value. Clearly, there are advantages about gas that you should consider in your plans.



### Clear Guidance

**T**HROUGH your Area Gas Board you can bring the full resources of the Gas Industry to bear on fuel problems. The Boards' specialists are always available for consultation and their services are free. If you would like the latest information about gas, get your secretary to fill in these details (or pin this advertisement to your letter heading) and send to your Area Gas Board or to the Gas Council, 1 Grosvenor Place, London, S.W.1.

NAME .....

ADDRESS .....

WE NEED HEAT FOR ..... 67

*The Gas Industry makes the fullest use of the nation's coal.*

GC078



# COMPLETE PLASTER

*Specifications for*

## ARCHITECTS

"Murite"  
REGD TRADE MARK  
GYPSUM PLASTER

## MURITE ADVANTAGES

**FIRE RESISTANCE** "Murite" Plasters when set revert to Gypsum. This mineral contains 20% of Chemically combined water which must be driven off before dangerous temperatures can be reached. This water barrier is one of the reasons why "Murite" Gypsum Plasters have such excellent fire-resisting properties.

**WORKABILITY** "Murite" Plasters are simple to use. Scientific factory processing and a controlled set give superb working properties and allow ample time for first class results to be obtained.

**ECONOMY** "Murite" Plasters have a greater covering capacity than other similar plasters. The undercoat grades also require less sand therefore they effect a considerable saving in use.

**SPEED** "Murite" Plasters set completely within a few hours. If required, two coat work can be completed the same day and certain types of decoration can be started almost immediately without fear of failure.

## MURITE GRADES

**1**  
FIBRED PLASTER  
FOR SANDED  
UNDERCOATS  
ON WALL AND  
CEILING BOARDS,  
WOOD LATH, ETC

**1A**  
SPECIAL FIBRED  
PLASTER FOR  
SANDED UNDER-  
COATS ON METAL  
LATHING AND  
CONCRETE

**2**  
BROWNING  
PLASTER FOR  
SANDED UNDER-  
COATS ON WALLS

**3**  
WALL FINISH FOR  
FINISHING ALL  
CLASSES OF  
SANDED  
UNDERCOATS

**BOARD FINISH**  
FOR SINGLE COAT  
WORK ON ALL  
TYPES OF WALL  
AND CEILING  
BOARDS, CEMENT  
RENDERINGS, ETC.



DESCRIPTIVE FOLDER AVAILABLE UPON REQUEST

# CAFFERATA & CO. LTD.

NEWARK • NOTTS.

TELE : NEWARK • 2060

# THE FAMOUS Alborough GARAGE

## AND OTHER PREFABRICATED CONCRETE PRODUCTS

"ALBOROUGH" BUILDINGS EMBODY THESE CHARACTERISTICS:—

1. PERMANENCE because they are concrete.
2. SKILLED MANUFACTURE AND ERECTION AT MINIMUM COST because they are prefabricated.
3. THE CHARM OF THE TRADITIONAL TIMBER BUILDING WITH TEN TIMES THE LIFE—because they are "ALBOROUGH".

The "Alborough" method of prefabrication is based upon the tried and proved principle of post and panel units which time has shown to be the best. As posts and panels are assembled dry and all joints are sealed with a pressure gun application of mastic, any slight movement of the building over a period of years will not damage or interfere in any way with the structure.

An "ALBOROUGH" GARAGE (Single Unit)



"ALBOROUGH" MULTIPLE GARAGES

(erected by our Step-Site Method)

This method, which is adaptable to any site, shows a saving of 10% in erection costs as compared with normal sloping site erection.

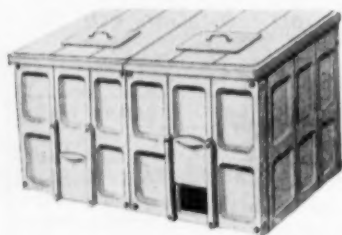


### THE "ALBOROUGH" COMPLETE ERECTION SERVICE

"Alborough" prefabricated concrete buildings and garages are erected by the manufacturers themselves. Free plans and site survey and the use of skilled labour in the laying of foundations and erection ensure a comprehensive service which also includes the completion of all statutory obligations under the Town & Country Planning Act and local By-laws.

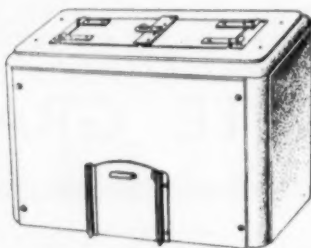
Note: Orders executed within 50 miles London only.

"Alborough" prefabricated concrete units, when treated with Alkali Resistant Chlorinated Rubber Paint, are equal in appearance to traditional timber construction.



A.B.C.D. CONCRETE COAL BUNKERS

The permanent answer to fuel storage problems. Available in single units and multiple units, from 5 cwt. upwards. There is a type to suit every site.



A.B.C.D. CONCRETE SANDBINS

Sand containers which are clean and tidy with no projecting corners. They are of the greatest durability and are particularly pleasing in appearance when treated with chlorinated rubber paint. Size: 4ft. 6in. wide x 2ft. deep; 3ft. to 3ft. 2in. height. Capacity approximately 19 cubic feet.

**ASSOCIATED BUILDING CONSTRUCTION DEVELOPMENTS (Raynes Park) LTD.**

34/35 ALPHA ROAD, SURBITON, SURREY.

Telephone: ELMbridge 6591/6593





*Cold going to work*




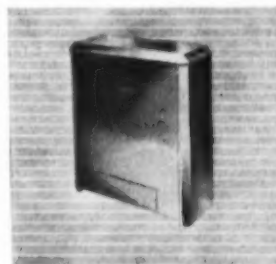
*Warm premises when they arrive*



*Warm all through the day*

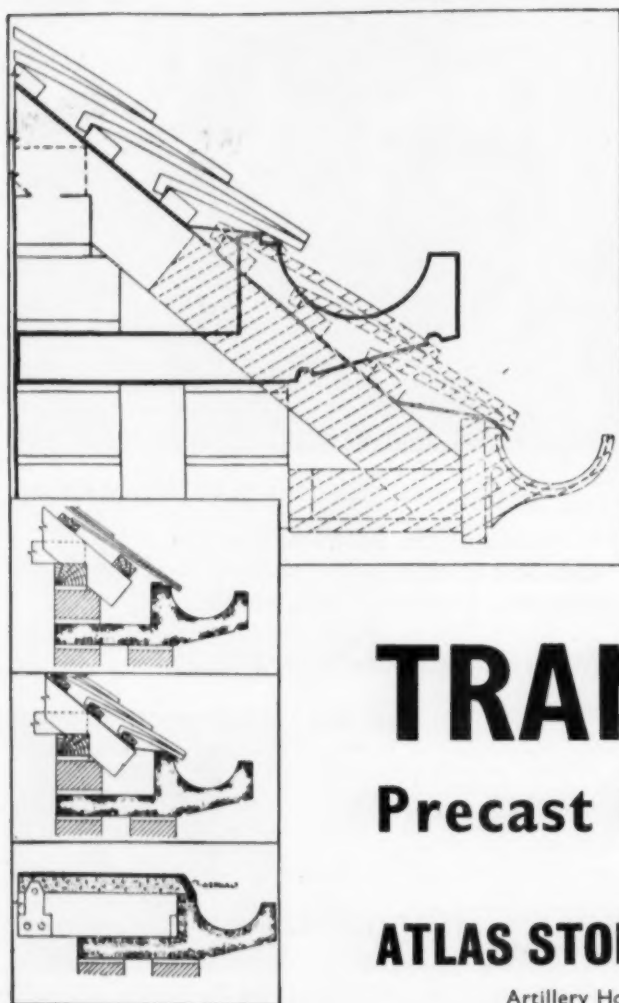
The Nightstor Heater is a most economical way of heating offices, school-rooms, workrooms and most commercial buildings. It stores heat at night, when cheaper electricity is available. A Nightstor installation is entirely automatic. It provides comfortable working temperatures throughout the day. The Nightstor Heater is available in three sizes. Write for descriptive leaflet Ho2482.

 **Nightstor** heater a *S.&C.* product  
stores heat at night  
for use next day





### With the Transverco precast concrete gutter



The TRANSVERCO precast concrete gutter is a permanent, pleasing feature that effects a substantial saving on every house or building.

It is easily fixed and is lighter per foot run than any similar type of gutter.

The TRANSVERCO guttering is made from high grade, reinforced, waterproof concrete which requires no treatment or maintenance.

Stop-ends, outlets, angles and closers are available, and are included in the price per ft. run.

The diagrams on the left show :—

Top : Sectional view. The shaded portion shows saving over normal gutter.

Lower : Method of fitting Transverco guttering for slate, tile and flat roofs.

# TRANSVERCO

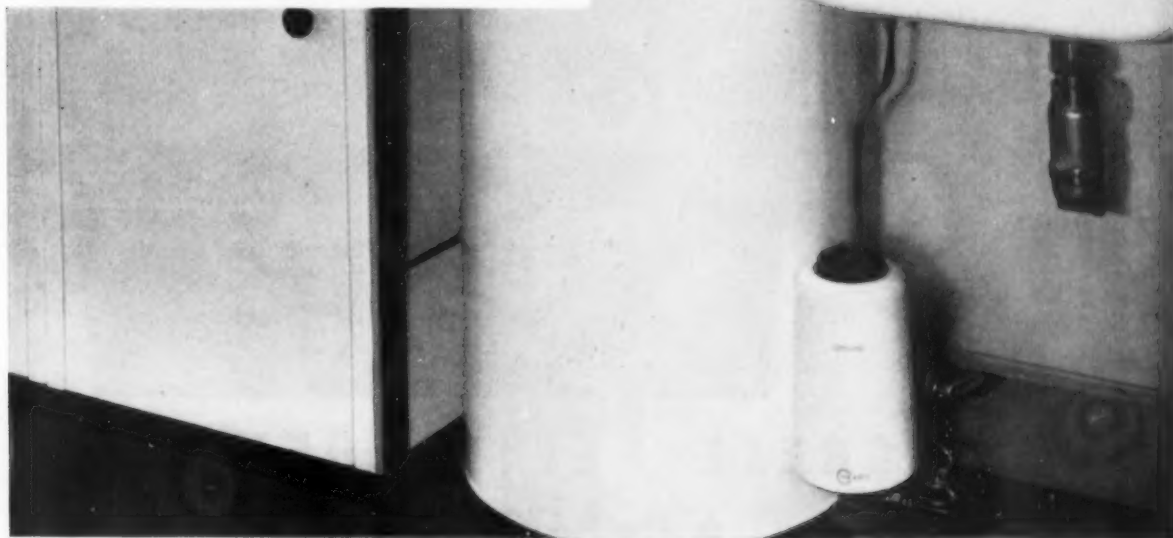
## Precast Concrete Gutter

Full details from

### ATLAS STONE COMPANY LIMITED

Artillery House, Artillery Row, London, S.W.1.

# A COMPLETE NEW WORLD HOT WATER SUPPLY SYSTEM



## FOR NEW BUILDINGS, CONVERSIONS AND IMPROVEMENTS

The universal demand for a complete hot water service which is reasonably priced, easily fitted and economical to use, has turned the attention of Architects and Municipal Authorities to the **NEW WORLD** Gas Storage Systems.

As an example, the **NEW WORLD** C.12.S. Circulator, fitted to a lagged 20 gallon cylinder, can be accommodated under the draining board in the kitchen. With the Economy Valve the user has the choice of heating 4 gallons for the sink and wash basin or 20 gallons when a bath is required. The temperature of the water is automatically controlled by the Regulo. If ventilation in the kitchen is adequate no flue is needed. This installation is being extensively used

in new houses and flats, and for the modernising and conversion of old property.

A similar type of installation is available for use in an airing cupboard; and when the house contains no ball valve cistern, a combination unit complete with cistern mounted on the cylinder can be supplied. The **NEW WORLD** Circulator can also be used as an auxiliary to an existing solid fuel system and is available in three sizes, the largest of which is suitable for schools and institutions.

**NEW WORLD** Storage Water Heaters provide hot water at the same temperature, Summer and Winter—they can normally be operated on the existing Gas and Water Services and require a minimum of maintenance.

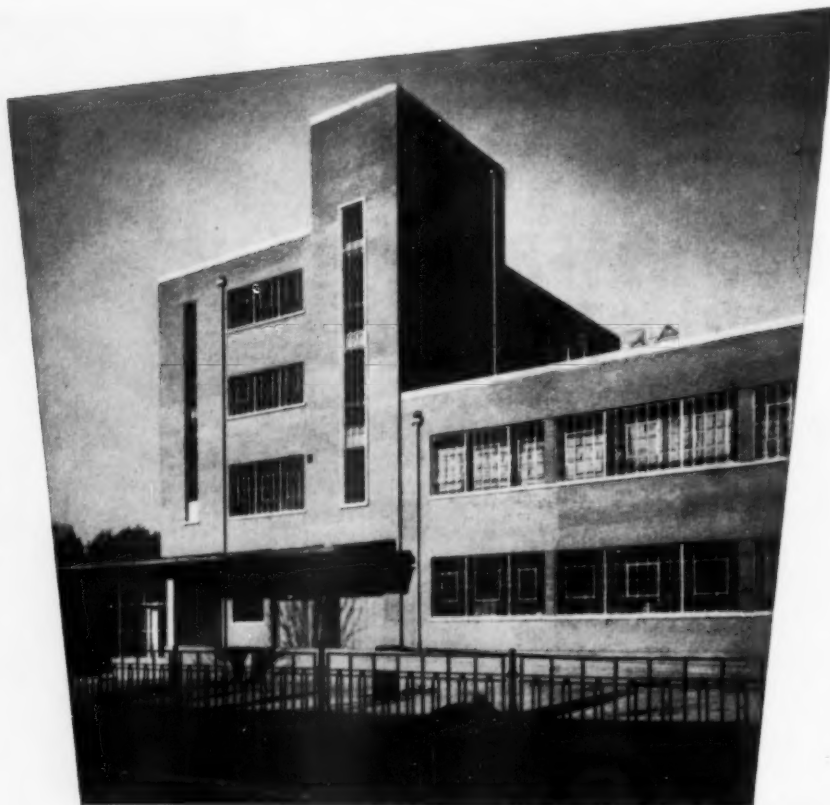
**recommend**



**gas storage water heaters**

Further information from: RADIATION GROUP SALES LTD., DEPT. W.E., 7 STRATFORD PLACE, LONDON, W.1 Phone: MAYFAIR 6462

**ARCHITECT AND ENGINEER:**  
*C. Howard Crane & Partners.*  
**GENERAL CONTRACTOR:**  
*G. Percy Trentham Limited.*



## FOR CONCRETE REINFORCEMENT

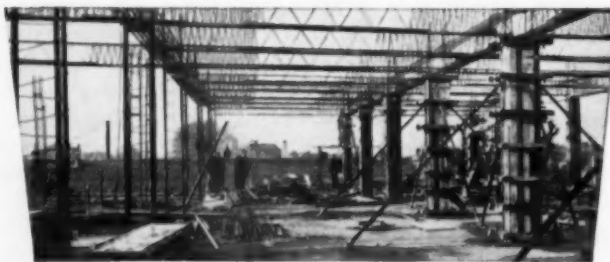
use **FRAMEWELD**

Trade mark

Regn : 589066

**A REAL TIME AND MONEY SAVER**

These pictures illustrate the extension to the existing factory of S. C. Johnson & Son Limited at West Drayton, Middlesex. The reinforced concrete frame was carried out in our patent FRAMEWELD system.



*A copy of the FRAMEWELD handbook describing the system will be sent on request.*



### **T.C. JONES**

**AND COMPANY LIMITED**

**REINFORCEMENT ENGINEERS**

Wood Lane, London, W.12. Telephone: SHEpherds Bush 2020  
Bute Street, Cardiff Telephone: Cardiff 28786  
Treorchy, Glamorgan Telephone: Pentre 2381



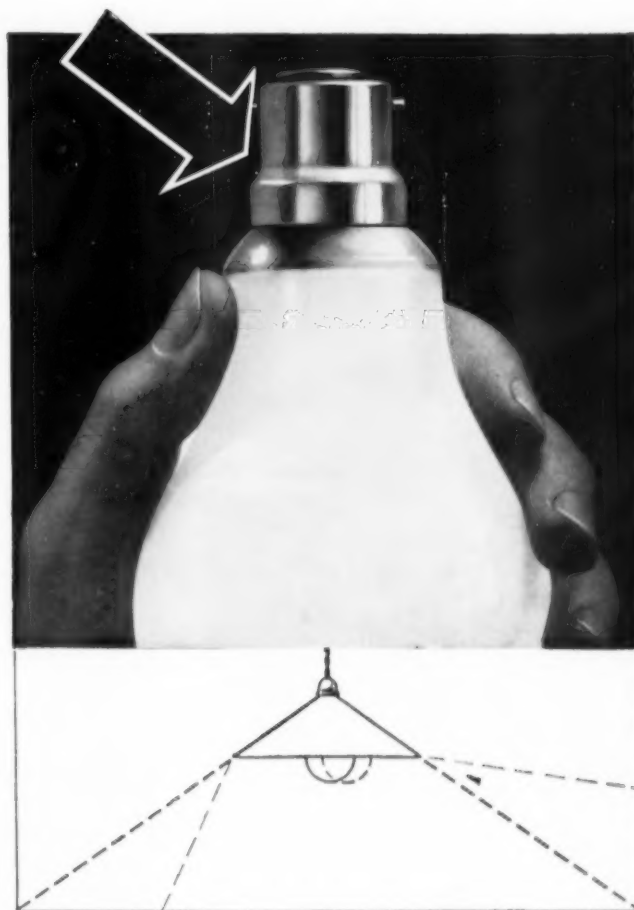
# Nothing left to chance...

## CAP AXIALITY

Correct distribution of light with Royal "Ediswan" Lamps is ensured because perfect alignment between the cap and the glass envelope is achieved during assembly.

The incorporation of a "register" accurately moulded into the glass during manufacture of the lamp makes correct fitting of the cap automatic.

*This is but one example of the intricate operations in the manufacture of Royal "Ediswan" Lamps, calling for the highest degree of technical skill and the utmost care and precision. Nothing is left to chance—only the finest materials are used and there is strict control at each stage of manufacture.*



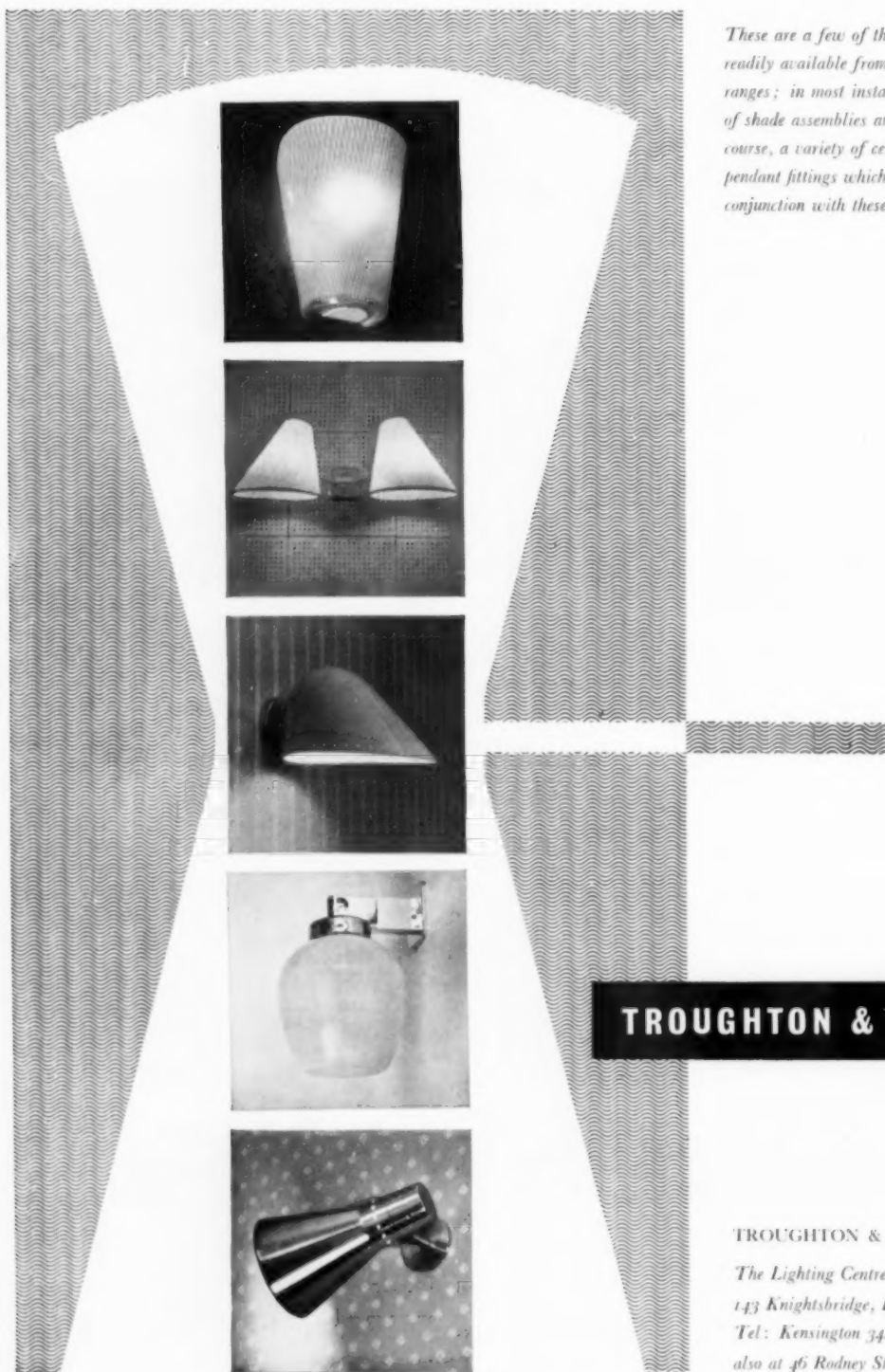
BY APPOINTMENT  
SUPPLIERS TO HER MAJESTY THE QUEEN  
AND HER MAJESTY THE KING  
THE EDISON SWAN  
ELECTRIC CO. LTD.

ROYAL **"EDISWAN"** LAMPS

The Edison Swan Electric Co. Ltd., 155 Charing Cross Road, London, W.C.2

*Member of the A.E.I. Group of Companies*

# Wall Brackets



*These are a few of the many brackets readily available from our standard ranges; in most instances there is a choice of shade assemblies and there are, of course, a variety of ceiling and pendant fittings which can be used in conjunction with these when desired.*

**TROUGHTON & YOUNG**

TROUGHTON & YOUNG (Lighting) LTD.

*The Lighting Centre*

*143 Knightsbridge, London, S.W.1*

*Tel: Kensington 3444*

*also at 46 Rodney Street, Liverpool 1*

*Manufacturers of Ultralux, Versalite, Tubalux and Mondulite lighting fittings*

## VARIATIONS ON THE THEME...

# fresh air



### 'Permavent' LARDER LIGHT

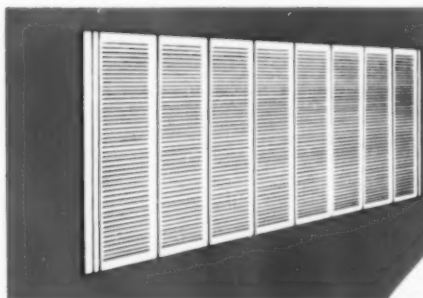
A steel-framed window PLUS ventilation through weather-resisting multi-louvered panels backed by insect-proof screens.

The fresh-air solution for pantries, sculleries, stores, garages, farms, dairies, etc. They are made in heavy gauge steel and are supplied rust-proofed and primed or hot-dipped galvanized. Available in 6 standard sizes and two types — single or double louvered panels.

### 'Permavent' WINDOW VENTILATOR

Designed to fit standard steel or timber glazed windows and doors, this all-steel horizontal ventilator replaces unsightly airbricks and gives continual fresh air with locked window security. Light and unobtrusive, it is made in two types — for permanent or controlled ventilation.

★ 'Permavent' Horizontal Window Ventilators were supplied for use in the Waltham House Flats, Paddington. Architects Messrs. Fry, Drew, Drake & Lasdun, 63 Gloucester Place, London, W.1.



### 'Maxaire' MULTI-LOUVRED PANELS

These small panel ventilators meet modern requirements of housing and industry; supplied in a multiplicity of sizes and incorporate specially designed multi-louvres which permit a large volume of air to flow between them, the effective air space thus provided being unequalled by other ventilators having the same louvred areas. "Maxaire" Panels and Strips are fitted to walls, partitions, doors, ceilings, cupboards and cabinets; they form admirable components for use with heating, cooling, ventilating, air convection and air conditioning equipment.

**GREENWOOD'S AND AIRVAC  
VENTILATING COMPANY LTD.**

Designers and Manufacturers of  
Ventilating Equipment for Buildings,  
Vehicles and Ships

BEACON HOUSE, KINGSWAY, LONDON, W.C.2.  
CHAncery 8135/6/7. "Airvac", London.

# GREENWOOD'S FOR VENTILATION

# NOW 3 NEW "EXPAMET" BEADS FOR PLASTER

*developed from our well-known  
"Expamet" Angle Bead*

They provide more applications for Expanded Metal, the amazingly versatile mesh metal material which is daily finding new uses in building and industry. Please write to us for our samples and our leaflet "Beads for Plaster-work". Our Technical Service is at your disposal for any help and advice you may need.



## BEADS FOR PLASTERWORK

THE EXPANDED METAL COMPANY LIMITED

Burwood House, Caxton Street, London, S.W.1. Tel: ABBey 3933. Stanton Works, West Hartlepool. Tel: Hartlepool 2194

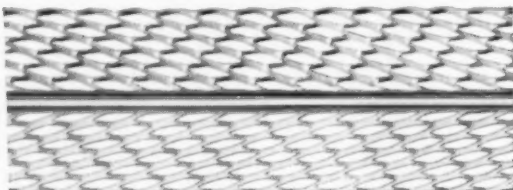
ALSO AT: ABERDEEN • BELFAST • BIRMINGHAM • CARDIFF • DUBLIN • EXETER • GLASGOW • LEEDS • MANCHESTER • PETERBOROUGH

### 1 "EXPAMET" SCREED BEAD

Made from tight coat galvanised steel, Expanded Metal Screed Bead is designed to provide an economical and practical division between different types of plaster finishes often applied to the walls of bathrooms, kitchens and lavatories.

When this practical Screed Bead is used to form a skirting for rooms with a concrete floor, the cement finish of the floor is brought up to the underside of the nose and the plaster of the wall brought down to the top side of the nose. A projection or quirk may be left if desired or the two finishes made flush. The metal nose gives valuable protection at the edge.

"Expamet" Screed Bead is obtainable in standard lengths of 10' or in other lengths up to 10' if required.



2

### CONCEALED PICTURE RAIL

The Expanded Metal Picture Rail can be fixed by the plasterer and used as a screed for ruling off the plaster. It is embedded in the plaster finish, leaving a slot round the wall at the height of a picture rail for the insertion of picture hooks; it can also be papered over if desired and the paper pierced for the picture hook.



3

### ROUND NOSE AND SQUARE NOSE CASING BEAD

"Expamet" round-nose or square-nose casing bead eliminates timber trim architraves for door and window opening, recesses, etc. It provides a perfect finish for the plaster right up to the opening.

Attractive in appearance and fully fireproof this casing bead gives greater protection for the finished plaster, will not warp or swell and provides a non-projecting finish which is easily cleaned and will not collect dust.

"Expamet" Casing Bead is cheaper than timber; it costs less to erect, as it can be fixed by the plasterer — a joiner does not have to follow him to fit timber architraves. It is obtainable in standard lengths of 7', 8', 9' and 10' and in other lengths under 10' if required.



*All illustrations are reduced in size*



## Introducing a modern non-combustible Asbestos Insulation Board

The illustration shows the interior of a modern factory in the North-East Lancs. area where "TURNALL" Asbestos Insulation Board has been used as an underdrawing to the roof.

This new board, in addition to having high insulation properties, is also classified as being non-combustible.

### "TURNALL" REGD TRADE MARK ASBESTOS INSULATION BOARD

#### Thermal Conductivity

Cold Face Temperature		Hot Face Temperature		Thermal Conductivity	
C	F	C	F	Joules per sq. cm. per second for 1 cm. thickness and 1°C difference in temperature.	B.Th.U. per sq. ft. per hour for 1 inch thickness and 1°F difference in temperature.
20	68	40	104	0.0012	0.80

Extract from a report on the thermal conductivity of a sample of "TURNALL" Asbestos Insulation Board, compiled by the Physics Division of the National Physical Laboratory. Report No. H.4206, dated 22nd June, 1953.



## TURNERS ASBESTOS CEMENT CO LTD

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

MANCHESTER 17

# "INSULIGHT" Double-Glazing Units for wide windows and warmth



Boys play winter games outside, but inside it is warm and comfortable because the window is fitted with "INSULIGHT" Double-Glazing. This is a thermal insulator as well as a window, reducing heat losses by as much as 50%—a reduction that holds good no matter how big the glazed area. With "INSULIGHT" Double-Glazing you can have wider windows, abundant light and colour, without adding to fuel costs.



Write to us for full details

**PILKINGTON BROTHERS LIMITED**

For further information on the use of Glass in building, consult the Technical Sales and Service Department, St. Helens, Lancs. (telephone: St. Helens 4001), or Selwyn House, Cleveland Row, St. James's, London, S.W.1. (telephone: Whitehall 5672-6). Supplies are available through the usual trade channels. "INSULIGHT" is a registered trade mark of Pilkington Brothers Limited. DG.14



# THE ARCHITECT & BUILDING NEWS

18 November 1954

"The Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid; U.S.A. and Canada \$9.00

Published by ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1  
Telephone: WATERLOO 3333 (60 lines). Telegrams: "ARCHITONIA, SEDIST, LONDON."

Branch offices: Coventry: 8-10 Corporation Street; Birmingham: King Edward House, New Street;  
Manchester: 260 Deansgate. Tel. Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); Glasgow: 26B Renfield Street.

## CRYSTAL PALACE SPORTS CENTRE

SINCE the Crystal Palace was burnt down a large part of the grounds was fenced off from the public and has reverted to jungle. Melancholy Victorian statues stick up out of luxurious blackberry bushes whose fruit is never picked. Wild-life has increased and the place was appropriately enough used for a setting in the making of a surrealist film.

The owners of this neglected and almost forgotten open space, the L.C.C., last week published their proposals for the use of a part of the grounds as a National Youth and Sports Centre, towards which the Council are prepared to contribute £1½m. We welcome these proposals and urge that everything should be done to hasten their realization.

Professional sport has its own grounds and facilities, and finances them in the normal way. Amateur sport has for too long had to exist as best it might, although it has become an established idea that the prestige of a country is dependent on the prowess and success of its amateur sportsmen and sports-women. Heroic efforts have been made in recent years by our horsemen and track athletes to keep Great Britain from being regarded by Continentals as a country with a brilliant future behind it.

Synonymous as Britain's name is with sportsman-ship, our amateurs have been handicapped by lack of financial support and facilities to a degree that has made them the object of pity and sympathy from nations whose policy it is to use sport to maintain prestige.

The Crystal Palace scheme should mark the end of this era of stinginess, but should not be interpreted as a sign that we are swinging too much in the direction of abandoning our traditional standards, which assure that a man has to be very dogged indeed to overcome the difficulties of remaining an amateur while competing with foreigners who

receive every encouragement from their Governments.

In architecture and engineering the modern idiom has found in stadia and swimming pools a most inspiring and appropriate subject for design and construction.

Buildings arising from the needs of dynamic and living uses afford better opportunities for contemporary design and technique than traditional buildings where unfamiliar re-interpretations arouse much public opposition. Where the public have not had time to form prejudices on appearance, the new look is more widely welcomed.

The architecture of sport has an impressive list of examples throughout the world. Now, it is our turn. We congratulate Sir Gerald Barry and Dr. J. L. Martin in this their latest project and wish the scheme success.

The proposed Centre will have full Olympic standards for sport. The King George VI Memorial Fund have agreed in principle to earmark £100,000 to provide headquarters and hostel buildings as a memorial to King George VI. The cost of running the centre is estimated by the L.C.C. at £50,000-£60,000 per annum. The Central Council of Physical Recreation, who represent 170 national organizations and whose aims are fully in keeping with the whole conception and purpose of the National Youth and Sports Centre, are regarded as the best people to run the scheme and they are prepared to follow up all practicable means needed to meet the running costs. The grant to the C.C.P.R. from the Government is about £75,000 per annum.

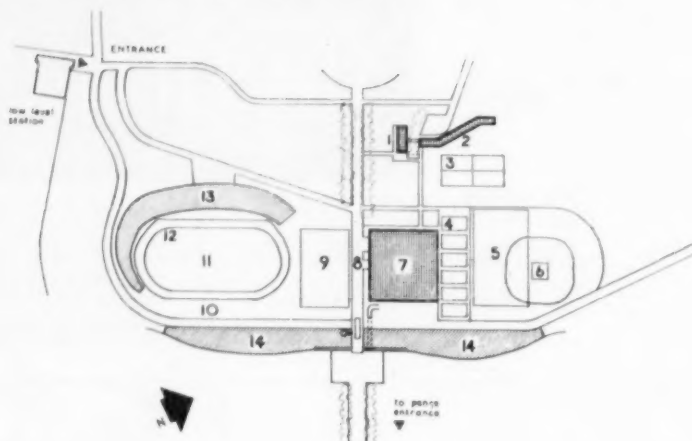
One method of raising funds for maintenance of the Centre would be by an additional Government grant. This might well be allotted from the present tax obtained from football pool profits, which is understood to be around £2m. per annum.

## National Youth and Sports Centre, Crystal Palace

ON Tuesday, November 16, the L.C.C. considered a report from their General Purposes Committee on the proposal for a National Youth and Sports Centre at the Crystal Palace—a scheme put forward as a self-contained proposal by Sir Gerald Barry, who is consultant to the L.C.C. for the future of the Crystal Palace and is now considering his further recommendations.

The accommodation provided by the Sports Centre has been worked out in collaboration with the Central Council of Physical Recreation. The design is the work of the Architect to the Council, Dr. J. L. Martin, M.A., F.R.I.B.A., with assistants: H. W. Engleback, B. G. Jones and M. J. Attenborough.

The existing level site of the sports area at once suggested itself as the most suitable location for the centre and totals, with extensions, about 40 acres. It has always been used for sporting activities. The layout and accommodation shown on the site plan contains the following:—1, Main sports hall with instructors' rooms, apparatus, dressing and changing rooms, envisaged as a focal point for

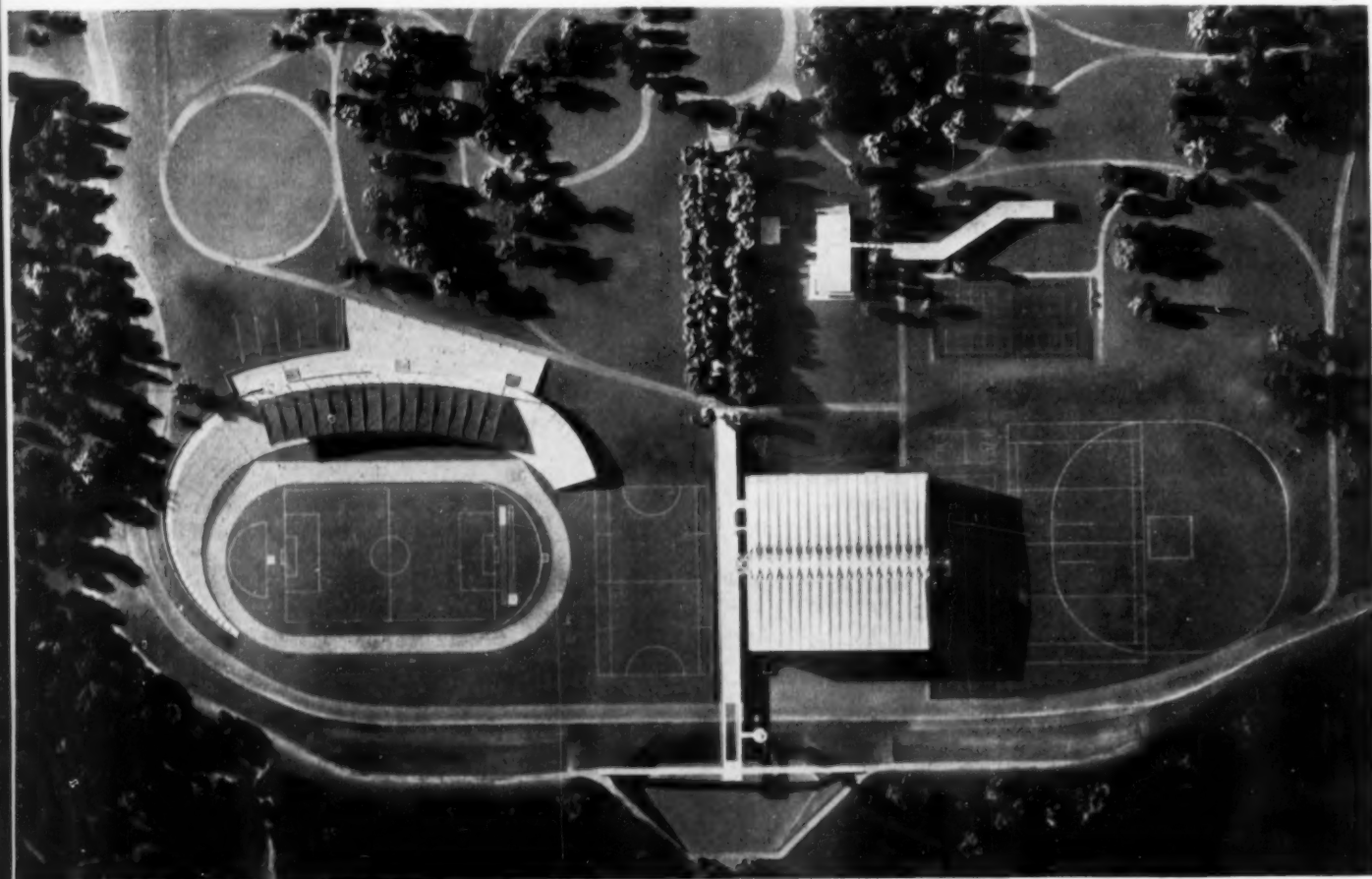


### KEY.

1. Hostel. 2. Dormitory wing providing accommodation for 140. 3. Hardcourts (tennis). 4. Hardcourts (tennis, netball and basketball). 5. Rugby. 6. Cricket. 7. Main Sports Hall. 8. Bridge (running track under). 9. Hockey. 10. Field Events. 11. Arena. 12. Running Track. 13. Stadium for 12,000. 14. Viewing stands for 12,000.

the development of amateur games. 2, An area with running track and stands for spectators, capable of accommodating many of the large amateur sports events. 3, A general open-air practice area of some three acres. 4, A swimming pool to Olympic Games dimensions. 5, Headquarters and

hostel block, which will provide residential and recreational accommodation for instructors and trainees, an administrative office, a centre for lectures and conferences and a place of reception for visitors. Further details of the buildings will be published in a future issue.





## EVENTS AND COMMENTS

### BASIL SPENCE ON COVENTRY

I told you last week that I was going to hear Basil Spence speak about his cathedral at the R.A.C. The occasion was a monthly club dinner and about 120 members and guests attended. I have not heard Mr. Spence speak on this subject before and I do not know how many times he has given this talk now. To hear him one would think that it was the first time. So simple, so robust, so lacking in vogue or quasi-artistic words, Mr. Spence's explanation of his design nevertheless burns with a hot flame. I, in company with the rest of his audience, was quite carried away not only by the eloquence, but by the sincerity with which Mr. Spence spoke.

He told us of how the design came to him on a visit to the site and how the main plan had never varied much from it. He told us of his constant work on the design of the interior and the many minor changes and improvements which had been made. He explained how the building would look and why; and why the outside was to be plain and played down.

From the questions that were asked afterwards it was clear that Mr. Spence had enormously impressed his audience. His remarkable ability in answering questions on construction, acoustics, heating, lighting, colour and decoration impressed as much again.

Although there were architects in the audience there were also many who were not, and I felt that Mr. Spence had really brought home to them in particular how an architect conceives his plan, develops it and how eventually it can become a part of his very life.

### SINGLE-STACK PLUMBING

The new Parliamentary Secretary to the M.O.H. & L.G., Mr. W. E. Deedes, opened last week an exhibition of single-stack plumbing at the Royal Sanitary Institute. The exhibition demonstrates the theories involved as a result of long-term experiments by the B.R.S. at Queen Anne's Mansions, and has been arranged jointly by the R.S.I. and the B.R.S.

The tower of four full-scale bathrooms with sinks is connected up with water supply and full drainage, all pipes being in transparent plastics. This is great fun. The system as shown has no venting of any kind and works admirably, even when everything is let go together.

For more than five floors some venting is necessary, but nothing like as much as is required in other systems. Very substantial savings in cost can be made by using the single-stack system.

Considering that the idea is so revolutionary—to the sanitary mind—it is extraordinary that no new devices and only the simplest of design rules are necessary to put it into effect. B.S.s cover nearly all the design requirements and new fittings suitable for use in the system are already on the market.

Mr. Alan Wise, M.R.San.I., of the B.R.S., has been in charge of the research on single-stack drainage. He has been on the job for over five years and is now only 28.

The exhibition, which is very well devised, is open until December 1.



Single-stack plumbing experiment, Queen Anne's Mansions

### BRIXTON AT THE B.C.

Mr. Nigel Birch, the new Minister of Works, opened the L.C.C. Brixton School of Building Jubilee Exhibition at the Building Centre last week. For a man so newly in the saddle he spoke with authority on the building industry's educational problems.

The exhibition, which is somewhat overpowered by its own very good setting, includes many interesting records of building schools, examinations and working conditions of yesterday. It needs a careful and leisurely visit. It is not designed as a show of work, although some is included, but as a review of the school's achievement and a pointer to its future. This it does very well.

### HIGH HAMPSTEAD

Not another High! you will exclaim. Yes, indeed. Councillor A. E. Skinner has made the suggestion to the Hampstead Borough Council that a scheme on the lines of High Paddington could house 8,000 people over railway marshalling yards in the borough.

"There are miles of railway track in Hampstead which could well be put into tunnels and so provide land for

housing our homeless. I have studied the High Paddington scheme," said Councillor Skinner, "and I believe a similar scheme could be applied to Hampstead."

This shows the vitality of Sergei Kadleigh's idea. I agree that it is well worth investigating, with the proviso that views from Parliament Hill and other high parts of Hampstead Heath be safeguarded, so that the illusion is maintained that London is remote. A high block, close at hand, breaking the silhouette of trees, would destroy this pleasant feeling. The encroachment would, I feel sure, be deeply resented, as was the L.C.C. proposal to build on land adjacent to the heath at the Highgate end.

Councillor Skinner should be interested in the forthcoming technical report on the High Paddington type of development which is now in preparation.

#### NEW CITY HOUSE

Mr. Clores's scheme, New City House, illustrated in *The Times* last week and at the foot of this page, will give the Royal Fine Arts Commission something to get their teeth into. It has been stated that the estimated cost of this scheme, designed by Mr. Felix Wilson and Partners, is £5m., and will take anything from two to four years to complete. It is hardly likely that even Sir Robert MacAlpine & Sons would be capable of £50,000 worth of work a week, so that the longer estimate is more likely to be nearer the mark.

#### TOWNY PIPIT

A letter in *The Times* which strikes a sympathetic note with me laments the inevitable end of the site as a bird sanctuary, which it has been for some years. The writer of the letter lists the Black Red-start, Wheatear, Whinchat, Chiff-chaff, Willow-warbler, Wagtail, Goldfinch and Linnet among wild birds seen from time to time.

This will be a loss. A more serious aspect of the scheme is that it will increase congestion in the City.

All the arguments marshalled against Perkins Heights by the L.C.C. apply in the case of New City House. His Grace, the Archbishop of Canterbury, speaking at the Lord Mayor's Banquet, objected to the scheme. The only reason he knew for building 27 storeys high was not to enable people to escape but to crowd more and more people on a given plot of land and bind them to it. But surely the point is that it does not bind them to it except between 9.30 a.m. and 5 p.m.

#### LOCH LOMOND EVENING

On November 24 two papers are being given at the Royal Society of Arts. One is on "A Scheme for Roof-top Roadways," by Wing Commander Cave-Browne-Cave, and the other is on "A System of Underground Roadways for London," by Mr. C. E. H. Watson. Sir Alfred Bossom will preside. Is the idea that the lectures will cancel out or that you pay your money and take



The project for building a 27-storey block of offices, to be known as New City House, on the four-acre site bounded by Jewin Street, Aldersgate Street, and Barbican in the north part of the City of London is being submitted to the Royal Fine Arts Commission for approval. The scheme has been considered by the Planning Committee of the City Corporation and awaits acceptance in broad outline. Its submission to the Royal Fine Arts Commission, on the ground that it is of national importance, implies that the planning committee is prepared to give such acceptance if the commission approves the scheme.

your choice? Perhaps the present roads will be left to the "veterans." I remember that Mr. J. E. M. Macgregor had a scheme for viaduct roadways which was very ingenious, but I don't recollect seeing it published anywhere. In the plan for Norwich, Mr. Rowland Pierce incorporated a viaduct road to solve the traffic problem, but this was relatively short.

### AUTOMATIC FACTORY

I see that the Institution of Production Engineers is to hold a National Conference in Margate next June to explore the problems which may arise from automatic factories. I hope they ask Mr. Charles Chaplin (Charlie to you) to preside and steer the discussion along the right channels. How beautifully the logical conclusion was shown in M. René Clair's pre-war film, *A Nous la Liberté*, ending with the factory making its gramophones all by itself, while the personnel sat fishing along the river bank outside.

The really automatic factory should be brought up to explore its own problems which would be, I suppose, what are now known as "the human factor."

### DON'T BE DETERRED

Mr. J. B. Hickman, L.R.I.B.A., architect to Wenlock Council, Shropshire, is reported to have had tests carried out after a tenant had complained that the surface of

her bath had started to corrode. In the tests eight panels with normal enamelled glazes were treated with "the sort of things that people use to clean their baths." In one case a surface disappeared after contact with a detergent for only five seconds. The Council is to be asked to send out warning notices. The Consumers' Council in the U.S.A. has had some fun testing widely advertised products and passing on the results to consumers. Advertising claims that were untrue or dangerous have been in many cases withdrawn—or else.

If Mr. Hickman's tests have been carried out scientifically and conclusively, and we have no reason to think that they have not, he has done a valuable service. I have had alcoholic drinks offered me by chemists, who pooh-poohed my suspicions that they were not like "the real thing." But I remain suspicious; some things are too true to be good!

### TAIL PIECE

Last week I spent an evening with some friends, who parked their car outside the R.I.B.A. After the show we strolled along to a restaurant in Soho. Coming out again we all agreed that the car was far enough away to justify taking a taxi back to it. It is the first time I remember giving a car number as destination to a taxi-driver, but will it be the last?

ABNER

## NEWS OF THE WEEK

### Notes from the Minutes of the R.I.B.A. Council Meeting Held on November 2

#### Appointments

R.I.B.A. Representative on Council for Visual Education: Alan Reed, in place of the late E. A. L. Martyn. (Note: the other representative is Oswald P. Milne.)

B.S.I. Committees PVC/2, Paints, and PVC/2/3, Colour Schedule Cards: D. L. Medd.

Ministry of Housing and Local Government Housing Medals, 1955

At the request of the Minister the following were appointed by the Council as Chairmen of Regional Awards Committees:—

No. 1—Northern, C. W. C. Needham; No. 2—E. and W. Ridings, Noel Pyman; No. 3—North Midland, F. Hamer Crossley; No. 4—Eastern, E. C. R. Sandon; No. 5—London, Sir Charles Mole; No. 6—Southern, J. B. Brandt; No. 7—South Western, Robert Potter; No. 8—Wales, C. F. Bates; No. 9—Midland, S. T. Walker; No. 10—North Western, G. Grenfell Baines; No. 12—South Eastern, R. W. Paine. In addition, the following were appointed as architect members of the Awards Committee for Region No. 5—London: C. E. Culpin, G. A. Jellicoe, Anthony Minoprio, T. E. North.

#### Direct Election to the Fellowship

On the recommendation of the Councils of the Royal Australian Insti-

tute of Architects and the Institute of South African Architects respectively, the following were elected to the Fellowship under the provisions of the Supplemental Charter of 1925, Section IV, Clause 4:—

William Thomas Leighton, A.R.I.B.A., Past President, Western Australian Chapter, R.A.I.A. Henk Theodorus Otto Niegeman (South Africa).

#### R. Phene Spiers

The Secretary reported that Mr. Bernard Hickman, of Colwyn Bay, had presented a plaque struck in commemoration of R. Phene Spiers, F.S.A., F.R.I.B.A., for keeping in the archives of the Royal Institute. A letter of appreciation and thanks was sent to Mr. Hickman.

#### National Buildings Record

The Secretary reported that after considering representations made by a number of bodies, including the R.I.B.A., the Minister of Works had decided not to proceed with the proposal for the Ministry of Works to take over the National Buildings Record. The Council received the decision to leave the National Buildings Record as an independent body with satisfaction.

### Australian Architects Exhibition

At a recent Council meeting of the R.I.B.A. the Council accepted with appreciation the offer of the Royal Australian Institute of Architects to

prepare an exhibition of contemporary Australian work for showing at the R.I.B.A. early in 1956.

### Nuffield Fellowships for Architects

At the same meeting the Council were informed that the Trustees of the Nuffield Foundation had decided to establish two Fellowships for architects tenable for a period of two years with the object of extending facilities for post-graduate work and research at universities. The selection committee convened by the Nuffield Foundation would include Sir William Holford and it was suggested that Dr. Leslie Martin should represent the architectural profession; this was agreed.

### The Architecture Club

A Supper of the Architecture Club was held at Chez Auguste, Soho, on Thursday, November 4, under the chairmanship of the President, Viscount Esher, and was followed by a discussion on the proposed Exhibition of Architecture.

The discussion was opened by Mr. Gordon Russell and Mr. Goodhart-Rendel, and was continued by Mr. Philip James, Mr. Peter Shephard, Mr. Darcy Braddell, Mr. E. D. Jefferiss Mathews, Colonel H. P. Cart de Lafontaine, Mr. Michael Patrick, Mr. Gilbert Ledward, Miss J. Adburgham, Mr. Hilton Wright and Mr. Paul Reilly.



## Reduce Building Costs

Mr. William Deedes, Parliamentary Secretary to the Ministry of Housing and Local Government, visited Canterbury on November 15 to see 36 demonstration houses which have been built by the City Council on sites in London Road and York Road.

The Ministry of Housing and Local Government have since the war been studying various modern building methods and materials to find out whether, by using them, houses can be built more cheaply. Lighter forms of construction, successful both in Europe and America, and various materials, some of which have already been widely used, have been studied.

The Ministry invited Canterbury to co-operate with them in putting theory into practice, and to make a selection from a number of materials which they suggested. The houses visited by Mr. Deedes are the result, and they have proved that worthwhile savings in costs can be achieved.

They have been built for about £1,000 each, plus cost of land and services, and savings estimated at at least from £50 to £60 per house have been achieved when comparing the costs with those of typical council houses of about the same size and in the same district.

The houses are of cross-wall construction, which lightens the fabric without loss of amenity or standard. An article on the houses will appear in next week's issue.

## Discussion of Building Costs at B.C.

A discussion of the subject "An Approach to Lower Building Costs" is to be held at the Building Centre, Store Street, London, W.C.1. on Tuesday, November 23, at 6.30 p.m. It is being held in connection with the Golden Jubilee celebrations of the L.C.C. Brixton School of Building and has been arranged in association with the Technical Information Service of the Ministry of Works.

The chair will be taken by Sir Thomas P. Bennett, F.R.I.B.A., F.R.S.A., Hon. F.I.O.B., F.I.B.D. His team of experts will include R. W. Wates, Esq., J.P. (Wates, Ltd., Contractors), D. F. L. Brech, Esq., B.A. B.Sc. (Econ.), M.I.I.A. (Messrs. Urwick Orr & Partners, industrial consultants) and A. G. Raven, Esq., A.M.I.A. (Sir Lindsay Parkinson & Co., Ltd.).

There will be no charge for admission and all concerned with the building industry are welcome to attend and take part in the discussion. Accommodation is restricted, but a few reserved seats will be available. Early application for tickets should be made to the Ministry of Works (Room 239), Lambeth Bridge House, London, S.E.1 (Tel. Reliance 7611, Ext. 1328).

## CORRESPONDENCE

### The Module

To the Editor of A. & B. N.

Sir,—“Dutch Uncle” must not be allowed to shrug off the whole development to date of modular design as “prefabrication” (whatever he may mean by this loose word). There are plenty of examples in wet-and-heavy construction as well as light-and-dry, in those fashioned on the site as well as factory-made components, in which modular measure has provided the common frame of reference by which the dimensions of products from different sources are ordered. Of course “traditional” materials (whatever that may mean) will continue to be used.

He writes like someone comparatively new to the subject. The theoretical studies that he advocates were already under way in the 'thirties and early 'forties, when they were carried as far as academic studies in this essentially practical subject could be expected to reach. Since then the need has been, and still is, for ever wider practical experience in design, manufacture and assembly in order to develop and refine the art.

Take for example one of our major problems, that of tolerance. This is surely not one that can be solved by calling a halt to development whilst a Theory of Tolerance is evolved in a back room.

In adopting the already well-established 4in. module we are not, as he says, “assuming an answer to the problem,” but insisting that there shall be a basis for development to continue, instead of attempting to halt it whilst someone searches for a magic number. It is only in the context of a briskly expanding development that “all the factors involved” can be examined, which is something that I desire as much as he does. Without development these factors do not occur and cannot be examined.

I am, etc.,

MARK HARTLAND THOMAS.

### Timber Destruction by White Ants

To the Editor of A. & B. N.

Sir,—With reference to the letter over the signature of Mr. Sidney Loweth in your issue of October 21, the reply of the South African friend was indeed amazing if only by reason of the number of misconceptions revealed.

Evaluation of wood preservatives against termites has been in progress in the United States since 1911 and in Europe and other parts of the world for considerable periods. Reports on an International Termite Exposure Test have appeared in each issue of the proceedings of the American Wood Preservers' Association since 1930 and the information from that source has been augmented by reports from East, South and West Africa, Malaya and

Tropical America. At the 1947 British Empire Forestry Conference, Mr. P. M. D. Krogh, a delegate from the Union of South Africa, presented a paper on “The comparative efficacy of preservatives in wood exposed to termites and decay.” There is a publication by the Forest Products Research Laboratory at Princes Risborough (Leaflet No. 38) on the termite-proofing of timber for use in the tropics which might have afforded real assistance to Mr. Loweth's friend in the Transvaal. Further, pressure treatment of timber with creosote and other suitable preservatives is specified by Government Authorities in parts of Africa where the hazard from termites is severe and in Malaya pressure treated timber exposed to termite attack has actually been in service for twenty years.

Further information will be supplied on application to the British Wood Preserving Association, 6, Southamp-ton Place, W.C.1.

I am, etc.,

H. A. COX,

Technical Director,  
British Wood Preserving Association.

## COMING EVENTS

### The Royal Institution of Chartered Surveyors

November 22, at 5.30 p.m. General Meeting. Open discussion on “The Building Surveyor's Contribution in Private Practice and the Public Service,” with Oliver S. Chesterton, M.C., F.R.I.C.S., and Cyril H. Walker, C.B.E., M.C., F.R.I.B.A., F.R.I.C.S. At 12, Great George Street, S.W.1.

### The South Eastern Society of Architects Canterbury District Chapter

November 23, at 7.15 p.m. Talk on “Recent Development in Structural Design,” by Felix J. Samuely, at the Canterbury College of Architecture, St. Peter's Street, Canterbury.

### The Architectural Association

November 24, at 8 p.m. Ordinary General Meeting. “The Work of Auguste Perret,” by Erno Goldfinger, at 34, Bedford Square, W.C.1.

### Housing Progress, September

The number of permanent houses completed in Great Britain during September was 31,413 compared with 28,516 in September, 1953.

In the first nine months of 1954, 256,110 permanent houses were completed compared with 225,863 in the same period of 1953.

### Royal College of Art : Lethaby Lectures

The third lecture by the Lethaby Professor of Architecture, Professor Basil Ward, F.R.I.B.A., Hon. A.R.C.A., which will be on “W. R. Lethaby and his Times,” will take place on Monday, November 29, at 5 p.m., in the Lecture Theatre of the Victoria and Albert Museum, South Kensington.





## HALLFIELD ESTATE

### *Bishop's Bridge Road, Paddington*

architects: TECTON—DRAKE & LASDUN

*The designs for this scheme were produced by the firm of Tecton, partners Messrs. Drake, Lasdun, Lubetkin and Skinner. On the dissolution of the firm of Tecton in November, 1948, Messrs. Drake and Lasdun were appointed Architects for the development and execution of this scheme. The chief assistant was Alex Redhouse. Plans of the flats were fully illustrated in our issue of July 28, 1950.*

THE Hallfield estate is a 17-acre site S.W. of Paddington Station which was originally laid out with brick and stucco terraces and villas a century ago. The site averages 10ft below Bishop's Bridge Road and Gloucester Terrace and the original landscaping, reputed to be by Loudon, has bequeathed many fine trees including London Planes, Lime, Lombardy Poplars, Chestnuts, Sycamore, Mountain Ash, Mulberry, Magnolia and Catalpa.

In addition to satisfying the urgent needs of the community in terms of dwellings, provision for communal needs is also an integral part of the plan for this site. Facilities will include Primary and Nursery Schools, Club Room, Laundries, Public House, Garages, Shops, etc. The Primary School is now occupied and the communal laundry which has been built with these blocks of flats is illustrated on pp. 625 and 626 of this issue.

The overall density of the development is 176 persons

per acre, and the site coverage—the proportion of area covered by blocks of flats—is 9.67 per cent. The total number of dwellings is 656 and the total number of persons (calculated at 3.6 persons per dwelling), 2,362.

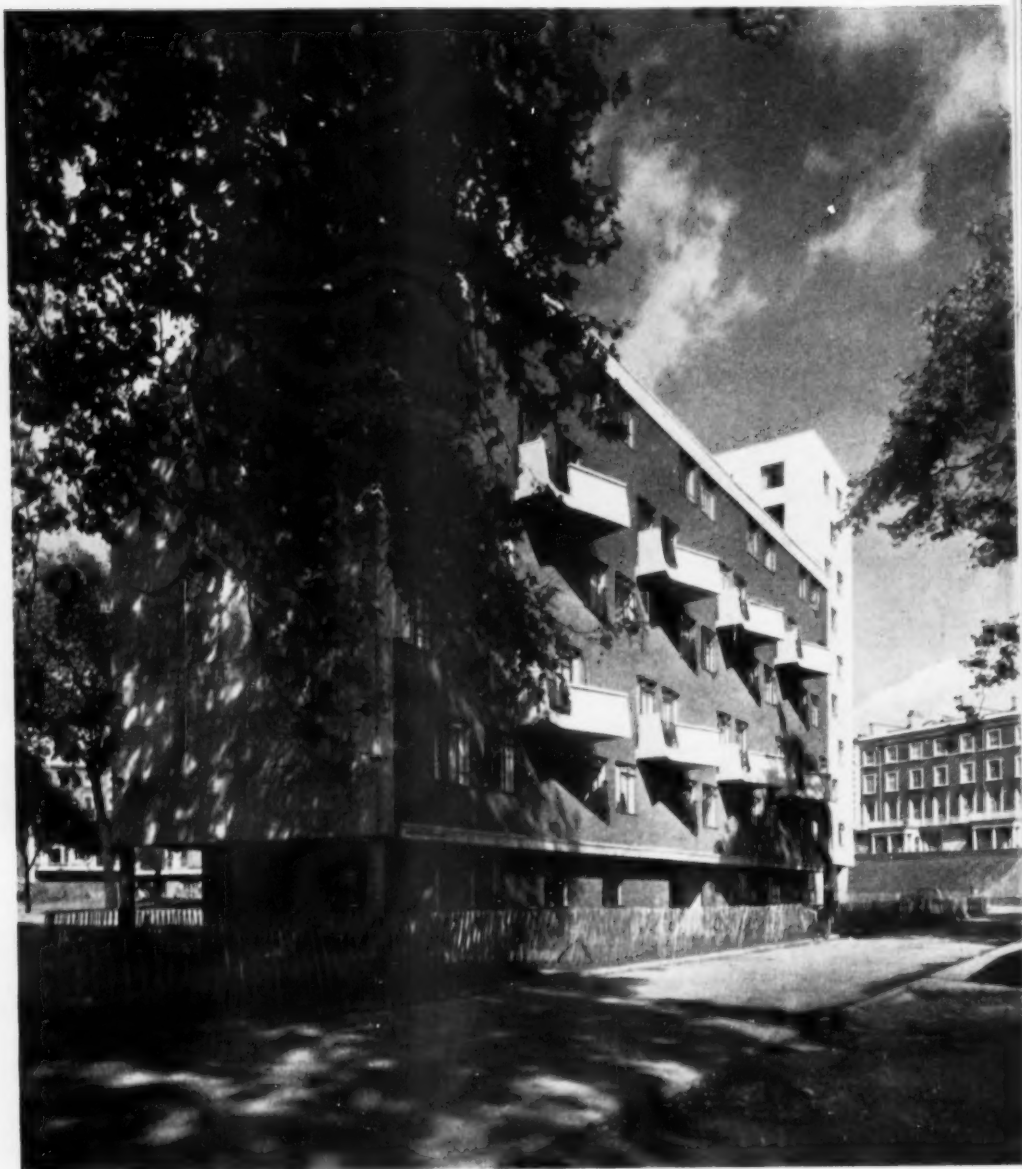
The housing is planned in ten-storey and six-storey blocks, aiming at the creation of urban complex of buildings arranged so as to achieve proper orientation of all dwellings, visual variety of precinct and vista in the layout, and disengagement of the community from fast-moving traffic.

The dwellings comprise flats containing from one to four rooms; access gallery planning has been adopted for economy, but no habitable rooms face on to the galleries. The ten-storey blocks have two central lifts large enough to take prams; the six-storey blocks have one smaller central lift and pram stores are provided on the ground floor. Kitchens and bathrooms and W.C.s are grouped together, and the plumbing is concealed in vertical and horizontal

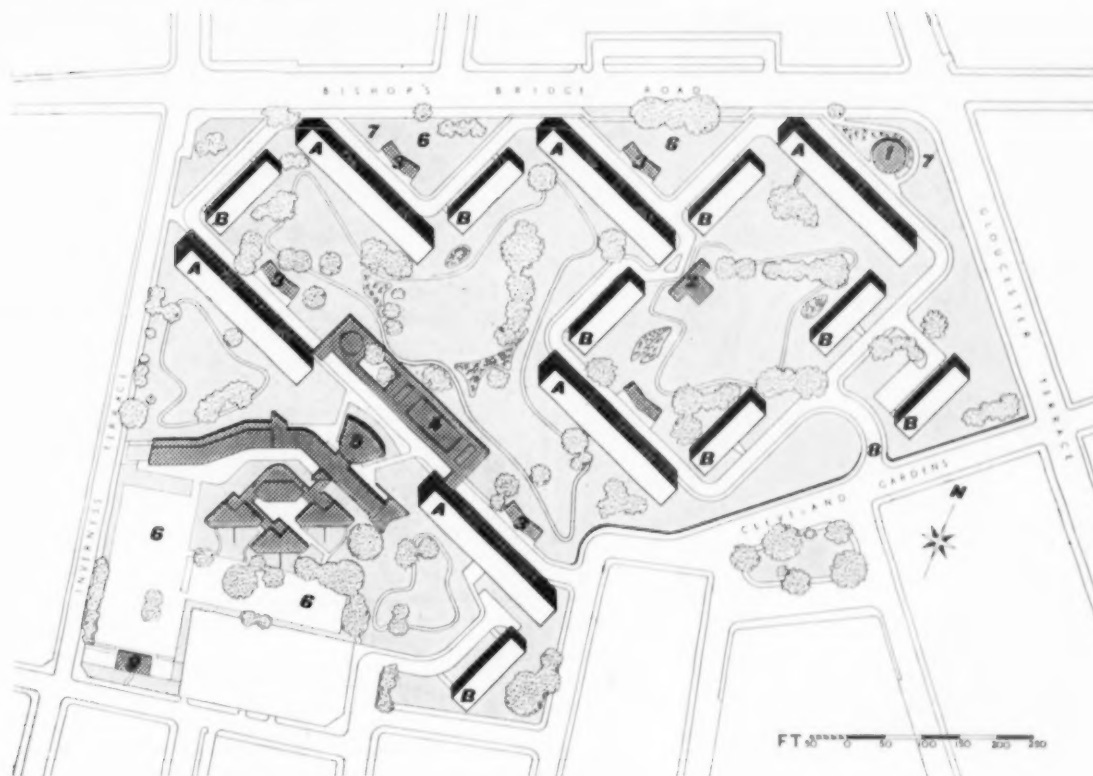
(Continued on page 621)

**Hallfield  
Estate,  
Bishop's  
Bridge  
Road,  
Paddington**

South-East elevation of a six-storey block. The gable walls and frame are clad with precast concrete slabs with Portland stone finish. The cladding is used as permanent shuttering. Dark red concrete bricks are used on the upper floors of the living room and bedroom elevation, and black bricks on the ground floor.



Left, view from the South-West corner of the courtyard showing living room and bedroom elevation of the ten-storey block and the access gallery elevation of the six-storey block. Only kitchens, bathrooms and entrance halls face on to the galleries. On the facing page is a detail of the access gallery elevation to a six-storey block. The balustrading is perforated in contrast to the ten-storey blocks. The in-filling consists of precast concrete slabs with a raised polished surface. The slabs are cast with an aggregate of black Cornish granite and black pigment in ordinary cement. Reinforced concrete structural members are clad in precast concrete with Portland stone finish.

**KEY.**

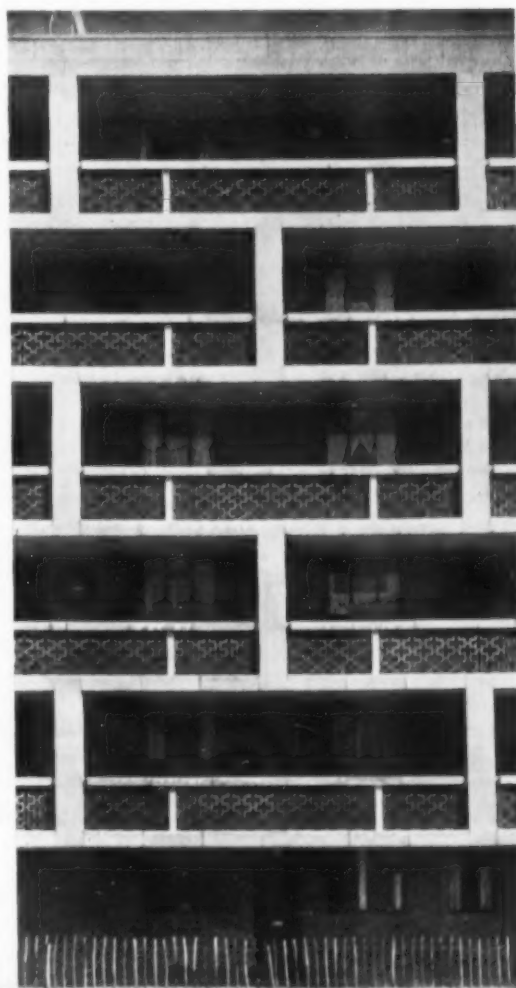
1. Communal Laundry No. 1 Heating and electrical substation. 2. Nursery School. 3. Garages. 4. Forum. Communal Laundry No. 2. Heating substation, Shops, Public House, Club Room, Terraces. 5. L.C.C. Primary School for 720 children. 6. Children's Playground. 7. Pedestrian Ramp down to site. 8. Ramp approach to site for pedestrians and vehicles. 9. School Caretaker. A. Ten-storey block. B. Six-storey block.

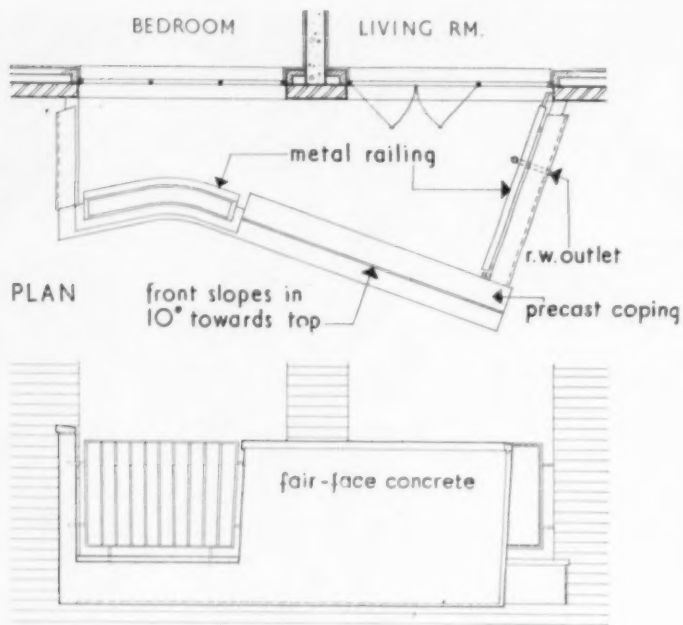
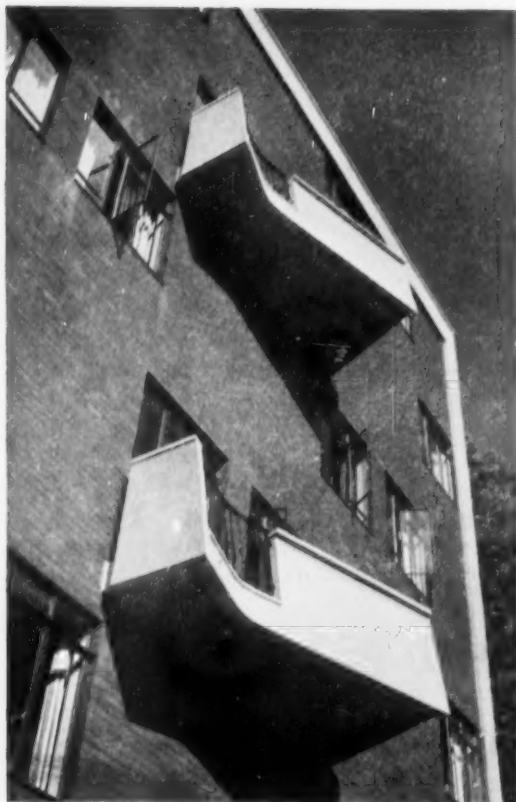
[Continued from page 619]

ducts. Refuse disposal is effected by means of chutes, with hoppers on each access gallery, discharging into sealed chambers at ground-floor level. The central heating is derived from the boiler plant of existing public baths in Queen's Road, via ducting to substations on the site which reduce the pressure of steam. The heating works on the vacuum return system, a pressure differential being maintained between the steam and condense lines.

On this scheme the plan requires the party walls between flats to be at 23ft centres. It is natural to form these walls in concrete and use them as vertical supports, and to gain wind stability. The resulting structures, therefore, consist of a series of continuous vertical and horizontal slabs with rigid joints, which is the ideal form for reinforced concrete. The detailed design has been based on the recommendations of the British Standard Code of Practice No. 114 (1948). The system is illustrated on p. 624. The external panels within this frame are made of 4½in reinforced brickwork, and all external walls have a lining of 2in insulation block with a 2in cavity.

The access gallery balustrades are constructed of pre-cast stone which is used as permanent shuttering. On the ten-storey blocks this stone contains an aggregate of grey and white Cornish granite, which is exposed on





ELEVATION

SCALE: 1 IN = 4 FT

*Cantilevered reinforced concrete balconies to six-storey blocks are spaced to avoid light obstruction to habitable rooms below. They provide by their form strong accents to the elevational treatment.*

### Hallfield Estate, Bishop's Bridge Road, Paddington

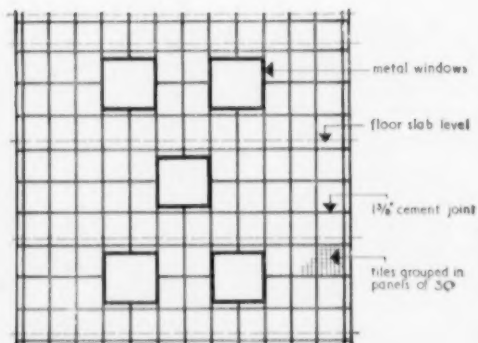
the face by polishing. On the six-storey blocks the gable walls and the columns on the access galleries have been clad by the same system with precast panels finished with a Portland Stone face. Between the columns the perforated balustrade panels are of black precast stone and have a raised pattern which is polished.

The walls behind the access galleries, and the E. elevation of the six-storey blocks, are faced with red

Dunbriks; on the S. side of the ten-storey blocks, red Dunbriks and Staffordshire blue bricks are used on alternate floors. The gable ends of these blocks, and the frames surrounding the main elevations are faced with ceramic frost-proof tiles.

The laundry wall is faced with black Dunbriks and the precast louvres between the windows and the fascia are finished in Portland Stone as on the other blocks.

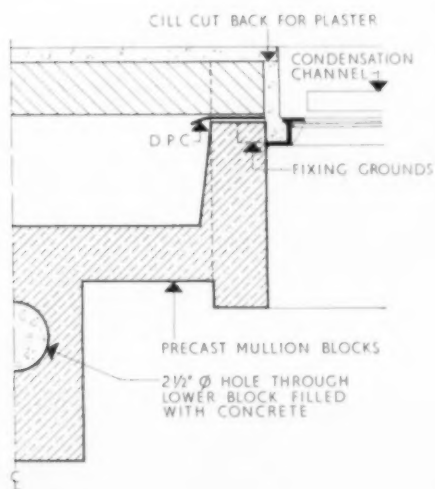
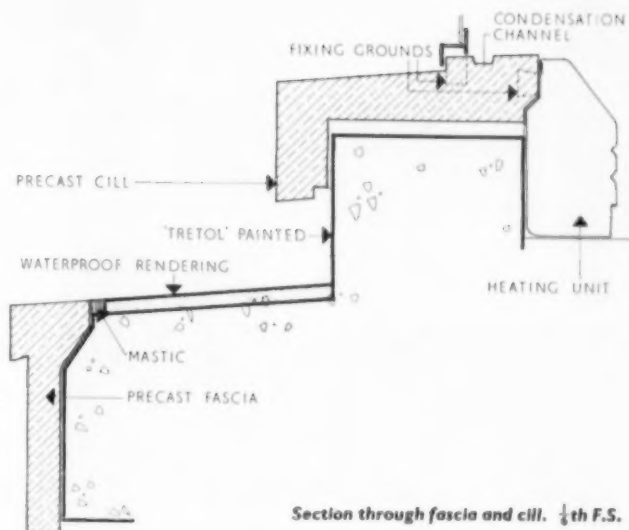
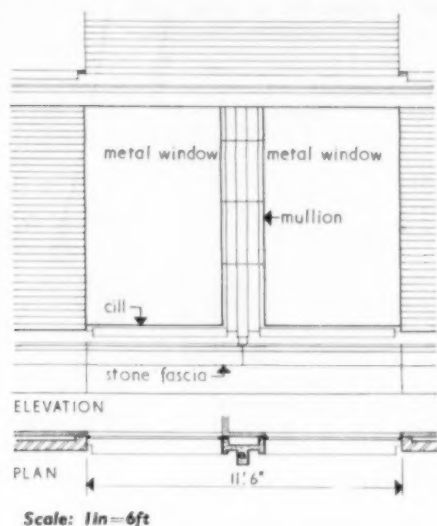
*View showing the two reinforced concrete columns supporting the gable wall of a ten-storey block. The grooves in the columns are formed by fixing slats to the timber shuttering. The reinforced concrete gable wall is covered with cream-coloured ceramic frost-proof tiles.*



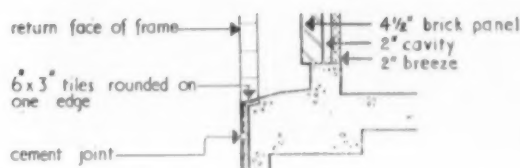
Scale: 1 in = 16 ft





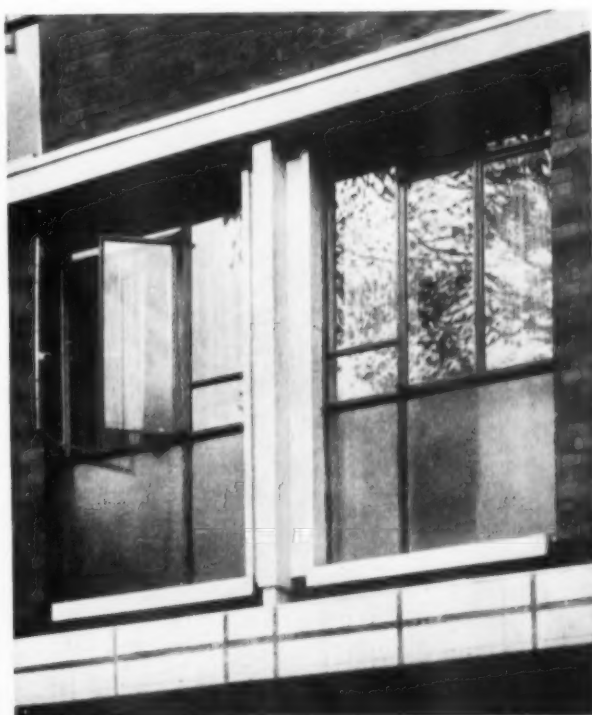
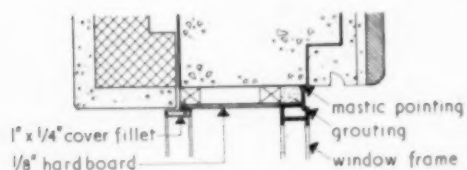
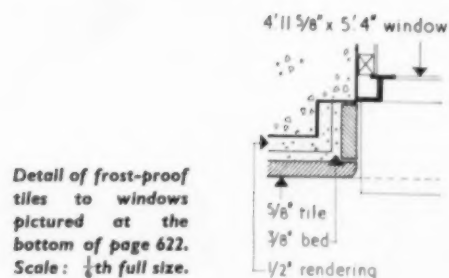


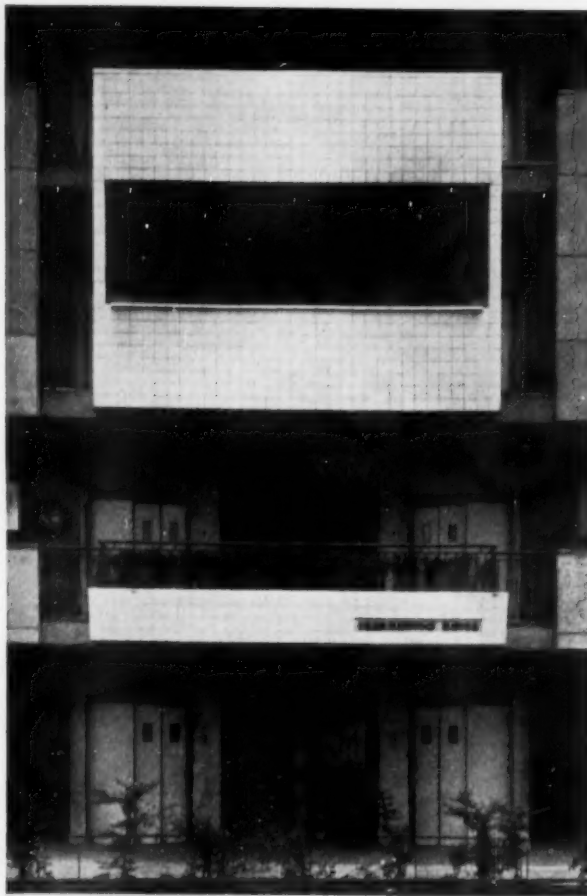
Plan of mullion block to window.  $\frac{1}{8}$ th F.S.



Section through bottom of side frame. Scale: 1 in = 3 ft.

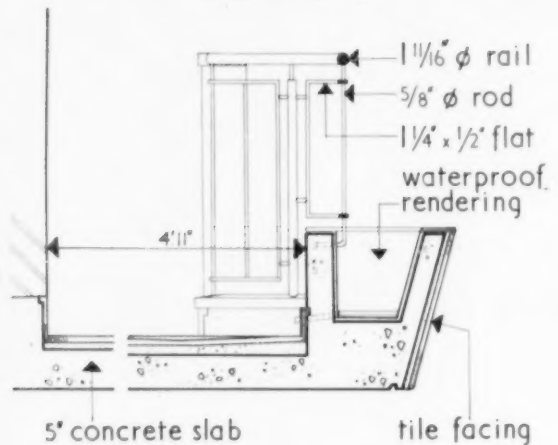
Photograph of one pair of windows to the ten-storey block, details of which are shown on this page.





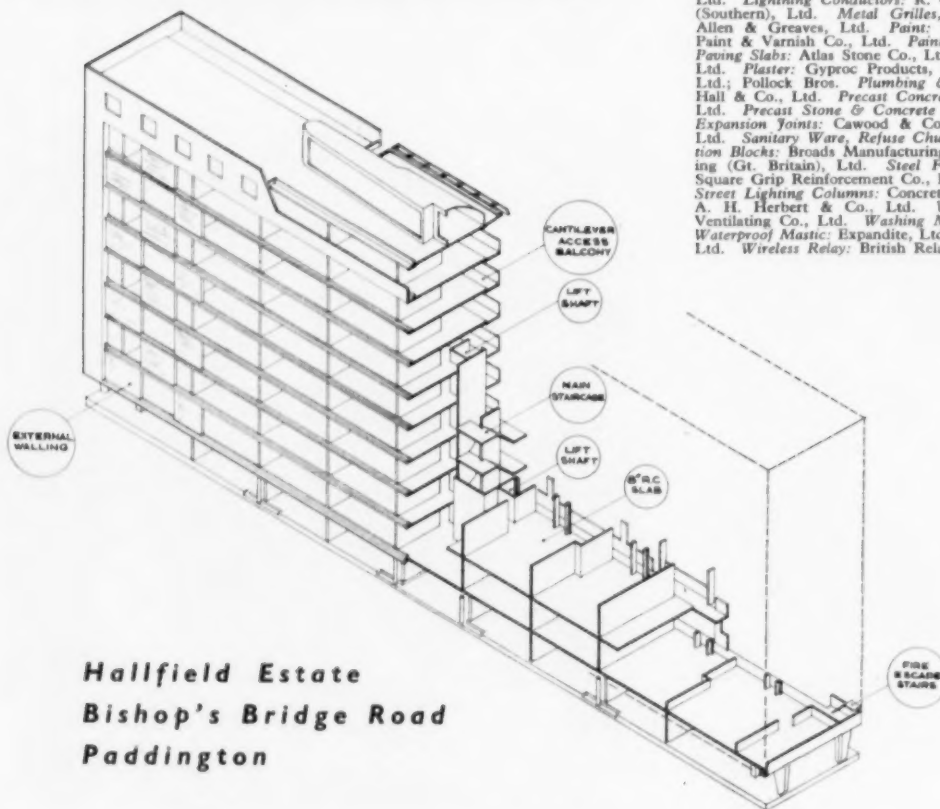
THE ARCHITECT and Building News, 18 November 1954

Detail of flower box to access gallery, pictured left.  
Scale: 1 in = 1 ft.



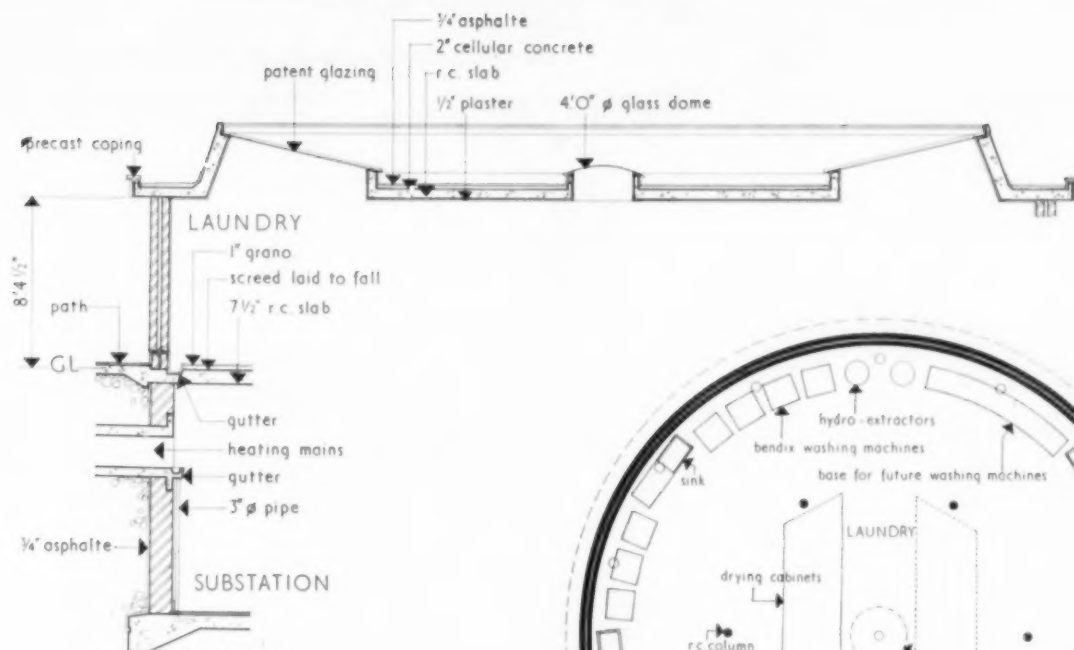
General Contractors:  
Walter Lawrence & Son, Ltd.,  
F. G. Minter Ltd. (2nd Stage)

Asphalt Roadwork: Highways Construction, Ltd. Asphalt Roof Felting and Flooring: The General Asphalt Co., Ltd. Bituminous Waterproofing: Tretol, Ltd. Bricks: Dunbrik, Ltd. Bulkhead Fittings: The General Electric Co., Ltd.; Dorman & Smith, Ltd. Curtain Tracks: Adrian Stokes, Ltd. Doors: Gliksten Doors, Ltd. Door Frames: Joseph Sankey & Sons, Ltd. Electrical Installation: Troughton & Young, Ltd. Electric Supply Services—site work: London Electricity Board. Garden Work: William Wood. Gas Supply Services: North Thames Gas Board. Glazing: Aygee, Ltd. Heating & Hot Water Services: Matthew Hall & Co., Ltd. Heating Convector: Dunham, Ltd. Insulation: Fibreglass, Ltd. Ironmongery: Lockerbie & Wilkinson, Ltd. Joinery: H. Jones, Ltd. Lettering to Blocks: The Lettering Centre. Lifts: J. & E. Hall, Ltd. Lighting Conductors: R. C. Cutting & Co., Ltd.; J. Smith (Southern), Ltd. Metal Grilles, Railings & Staircase Handrails: Allen & Greaves, Ltd. Paint: Duresco Products, Ltd.; Leyland Paint & Varnish Co., Ltd. Painting: J. W. Green (Painters), Ltd. Paving Slabs: Atlas Stone Co., Ltd. Piling: Simplex Concrete Piles, Ltd. Plaster: Gyproc Products, Ltd. Plastering: Jonathan James, Ltd.; Pollock Bros. Plumbing & Cold Water Services: Matthew Hall & Co., Ltd. Precast Concrete Products: Clarincrete Products, Ltd. Precast Stone & Concrete Facing Slabs: Wates, Ltd. Road Expansion Joints: Cawood & Co., Ltd. Roof Insulation: Celcon, Ltd. Sanitary Ware, Refuse Chute Pipes & Fittings, Breeze Partition Blocks: Broads Manufacturing Co., Ltd. Scaffolding: Scaffolding (Gt. Britain), Ltd. Steel Fixing: L. A. Gale. Steel Rods: Square Grip Reinforcement Co., Ltd.; Twistel Reinforcement, Ltd. Street Lighting Columns: Concrete Utilities, Ltd. Tiling—External: A. H. Herbert & Co., Ltd. Ventilators: Greenwood & Airvac Ventilating Co., Ltd. Washing Machines: Bendix Appliances, Ltd. Waterproof Mastic: Expandite, Ltd. Windows: Williams & Williams, Ltd. Wireless Relay: British Relay Wireless, Ltd.



Hallfield Estate  
Bishop's Bridge Road  
Paddington

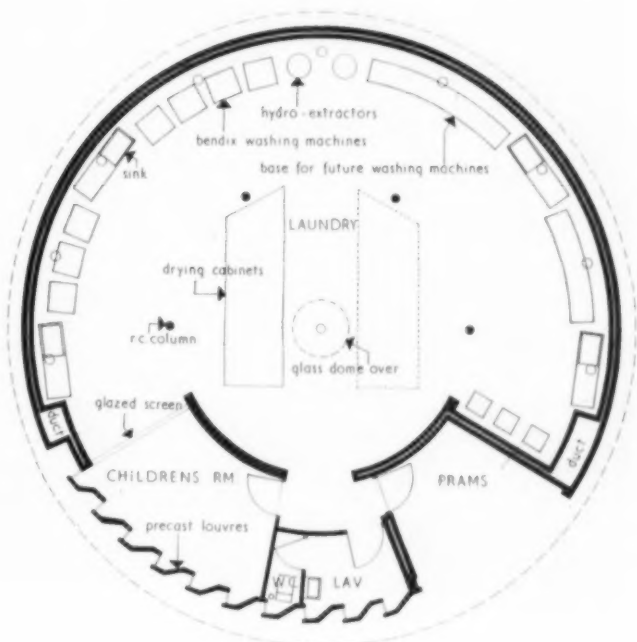
Diagram  
of the  
structure,  
10-storey  
block.



Section. Scale: 1 in = 8 ft

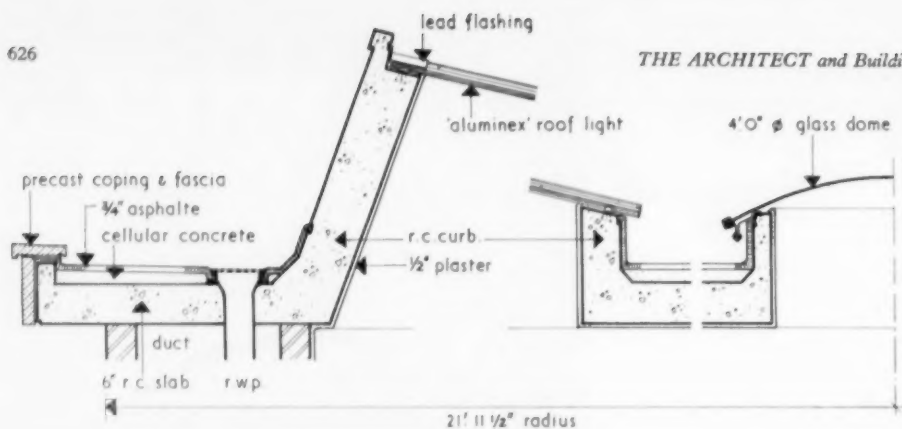
## LAUNDRY BLOCK

The circular laundry building built to serve the needs of the tenants in the first six blocks of flats, also contains in its basement the heating and electric sub-stations for the steam heating and for the hot water supply to the 248 flats in the first part of the scheme.



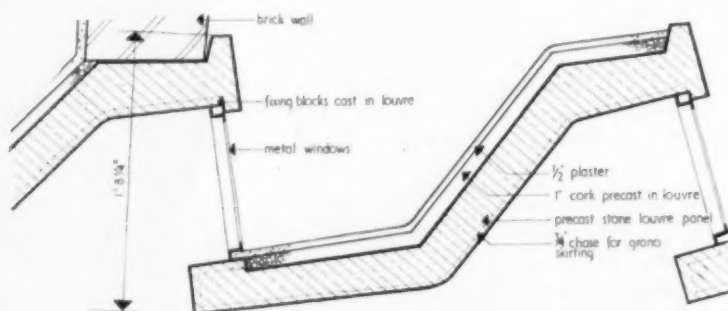
Plan. Scale: 1 in = 16 ft





Laundry Roof Detail. Scale:  $\frac{1}{2}$  in = 1 ft.

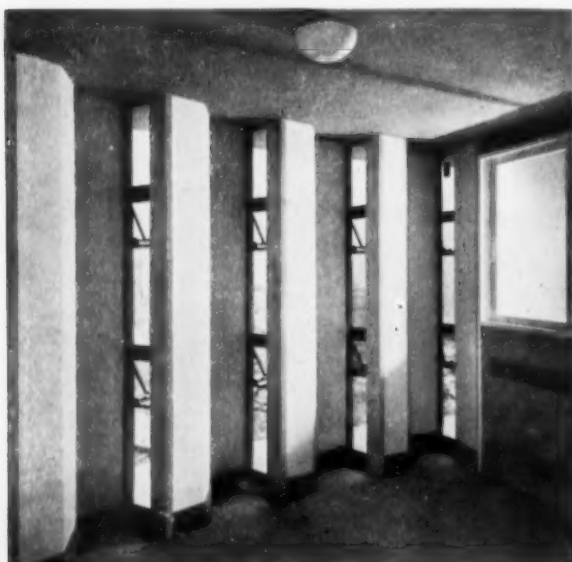
**Hallfield Estate,  
Bishop's Bridge Road,  
Paddington.**



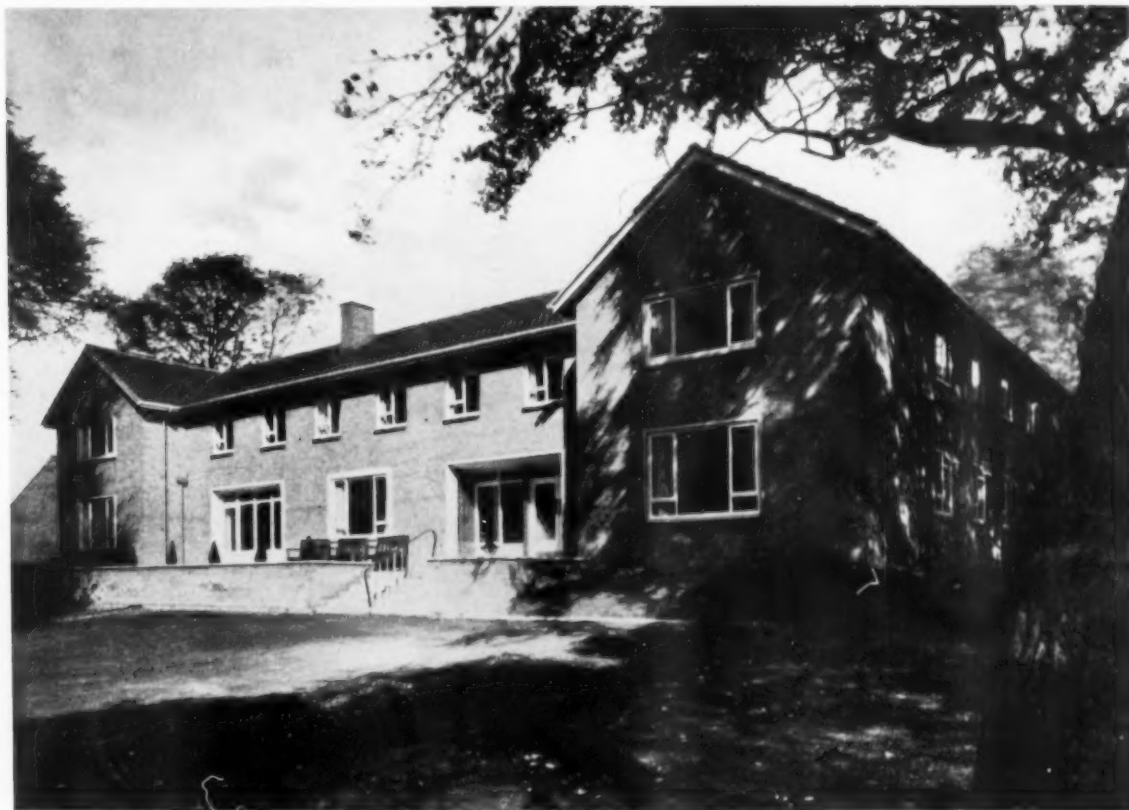
LAUNDRY BLOCK

Precast louvres. Scale 1 in = 1 ft.

The laundry is equipped with 14 "Bendix" washing machines, two hydro-extractors for normal washing, three gas boilers and four sinks for hand washing. The circular external basement wall to the heating chamber is in 13½ in brickwork and has been designed as a membrane structure loaded horizontally by the pressure of the surrounding earth and vertically by the self-weight and imposed loading from the laundry above. The roof structure is in reinforced concrete with an area of continuous fixed roof lights glazed in wired glass with aluminium sections. Pictured below is an interior view of the precast reinforced louvre panels and an interior view of the laundry.



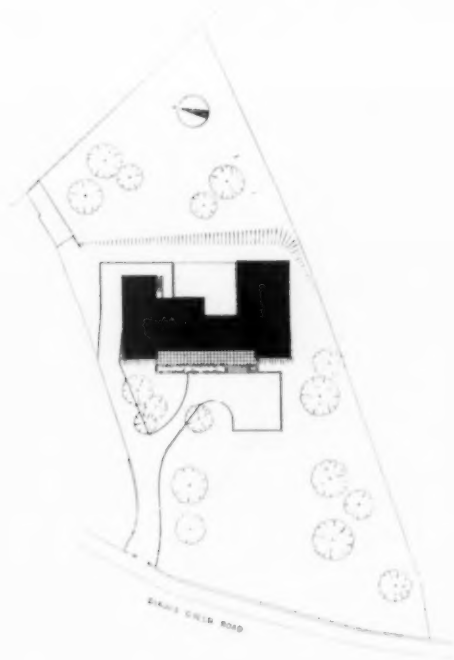




View from South-West

## “THE WOODLANDS,” OLD PERSONS’ HOME Dudley

architects : J. T. LEWES, A.R.I.B.A.  
Borough Architect  
R. E. OWEN  
Assistant-in-charge



SITE PLAN

THIS Old Persons' Home was designed to accommodate 23 aged persons, matron and assistant-matron. Four bedrooms for married couples are included, and the kitchen space is planned with a separate section where residents may wash up and prepare vegetables.

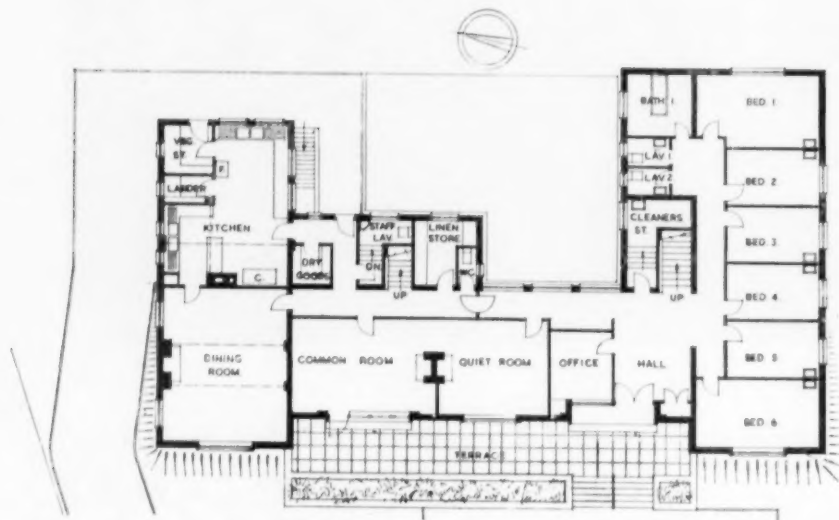
The site originally contained a house which was demolished as part of the contract. The new building was sited so as to retain the existing trees and gardens as far as possible, and was placed well back from the busy road which fronts the site. Work commenced in April 1953 and the building was completed in August 1954. The contract sum was £15,342.

### Construction

The external walls are of 11in cavity brickwork faced with local buff rustic facings. The ground floor generally



FIRST FLOOR



PLAN. Scale: 1 in = 24 ft

### Old Persons' Home

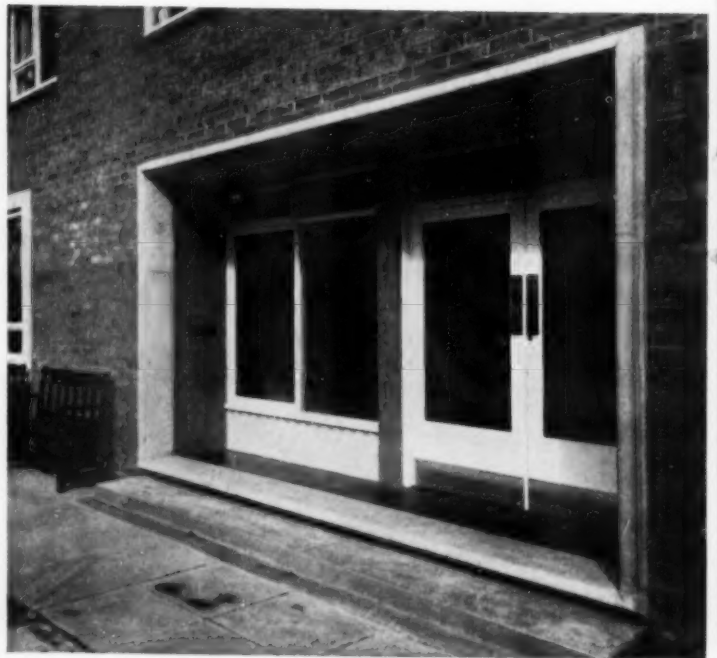
is 4in concrete and the first floor is constructed with timber joists carrying a floating floor of boards on battens, insulated with Fibreglass quilt. The pitched roof is constructed with T.D.A. type roof trusses and covered with dark brown concrete pantiles. The roof space is insulated with 4in thick Fibreglass laid over the ceiling joists. Floor finishes are "Opepe" wood blocks in the dining room and entrance hall and close fitted carpets in other rooms which is laid on a waterproofed screed on the ground floor. Wood windows have been used throughout.

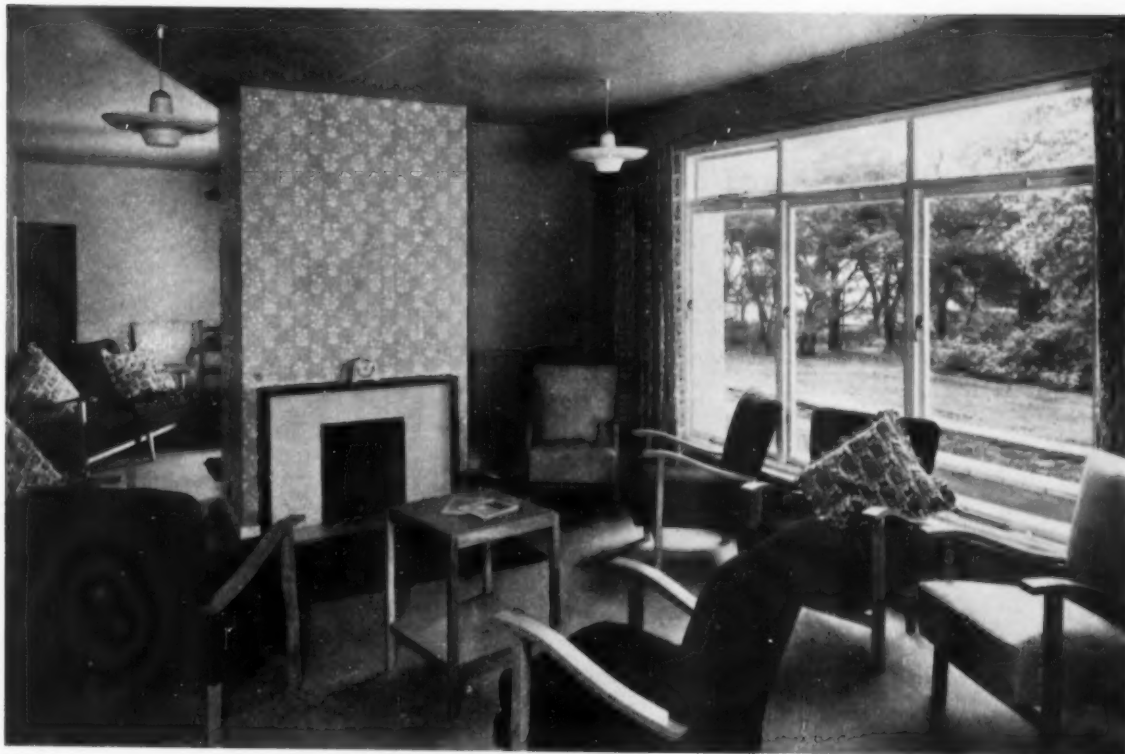
Carpets, curtains and furnishings fabrics were selected by the architect and integrated with the general colour scheme. Contemporary wallpapers have been used with restraint in the principal rooms. Dark blue wall tiles have been used in the front entrance porch, and externally all woodwork is painted white.

General contractors :  
Batham & Beddall Ltd.

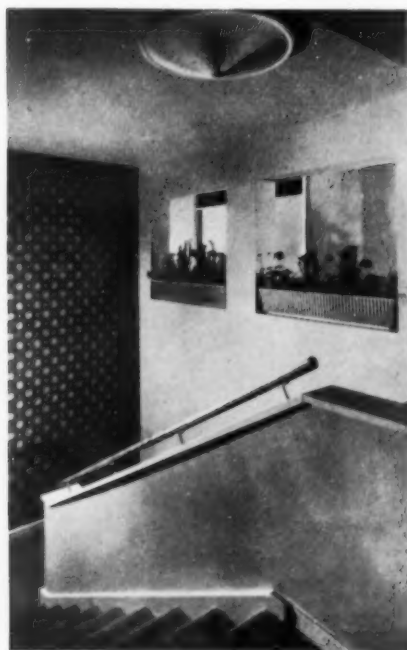
Concrete floor and roof beams, reconstructed stone: Tarmac, Ltd. Electrical installation: G. G. Walker & Co. (Dudley), Ltd. Facing bricks: W. Nock, Ltd. Fireplaces, glazed tiles: S. G. B. (Dudley), Ltd. Flat roof covering: Ruberoid Co., Ltd. Heating, hot and cold water installations: Dickens & Co., Ltd. Ironmongery: Walker & Wood, Ltd. Light fittings: Falk, Stadelmann & Co., Ltd.; Lee Longland & Co., Ltd. Metal hand-rail: Bayliss, Jones & Bayliss, Ltd. Roof and floor insulation: Fibreglass, Ltd. Roof tiling: Marley Tile Co., Ltd. Sanitary fittings: A. D. Foulkes, Ltd. Thermoplastic tiles: The Marley Tile Co., Ltd. Windows and built-in cupboards: The Midlands Joinery Works, Ltd. Wood block flooring: Hollis Bros.

Entrance Detail





Above: the common room, with the quiet room beyond, faces West. Right top: the dining room, and bottom: the kitchen. Below: the main staircase. The openings with flower boxes look into a first-floor corridor.



# AMMONIA STORE. GREENWICH



THE Phoenix Wharf works of the South Eastern Gas Board at Greenwich deals with the various chemical by-products of gas production. An extensive scheme of works reconstruction which is approaching completion has included the provision of a structure for the storage and handling of sulphate of ammonia, the main product.

The design for the store and bagging house has been prepared by the Central Construction Department of the Board in conjunction with Twisteel Reinforcement Ltd., who prepared most of the detailed drawings.

## Site

The site consists of fill overlaying recent alluvial deposits, which in turn rest upon dense flood plain gravel and firm blue London clay. As the foundation loads could not be taken on the alluvial deposits the piles were founded in the upper reaches of the gravel layer, which was some 18ft thick and lay about 20ft below the surface.

A total of 389 cast *in situ* Franki piles were driven, of which 213 support the sulphate of ammonia store floor and carry a maximum unsustained load of 60 tons each. The remainder of the piles carry a maximum load of 45 tons each. The piles at the foot of the abutments have a 10 deg rake.

## Structure

The whole building comprises the store, which is 168ft long and 96ft wide, and the bagging house, which is 108ft wide and 60ft long. The floor of the store and the bagging house at ground level are continuous and consist of transverse tie beams and slabs with a granolithic finish for the store, and a conventional arrangement of pile caps, beams and slabs for the bagging house.

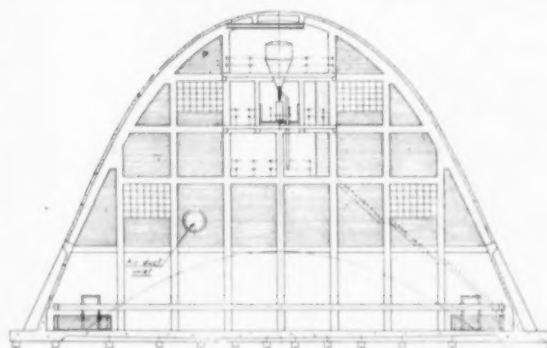
The store is constructed with sloping wing reinforced concrete retaining walls 17ft 6in high along two sides. These retaining walls are cast *in situ* with buttresses at 8ft centres. Opposing pairs of buttresses in the retaining

walls support precast, prestressed three-pin arches, each having a span of 86ft 6in and a rise of 48ft 6in.

The arch ribs are 12in wide and vary in depth from 1ft 9in at the ends to 2ft 9in at the point of maximum bending moment. Each rib is 66ft long and weighs approximately 13 tons.

The ribs were prefabricated on the site on a specially prepared "whale back" casting bed, which was designed to take six ribs and was therefore provided with six soffit shutters; only one pair of side shutters was provided. The 50ft-long central section of each rib was cast on this bed between two factory-made end blocks. This method was used to avoid joints in the ribs and to allow the hinges—rocker hinges at the abutments and a "knife edge" hinge at the apex—to be incorporated in the end blocks at the factory. The hinges are made of malleable cast iron.

The end blocks, which had been cast with ducts for the passage of the prestressing bars, were first positioned on the bed; the prestressing bars were then passed through the full length of the arch rib, the centre portion being sheathed in flexible metal tubing to prevent bond. The main central length of rib was then cast round



SECTION



them. The concrete mix was designed for 4,500lb/sq in at 10 days and the proportions were 1 : 1.4 : 2.8 by weight with a water/cement ratio of 0.38. Sulphate-resisting cement and  $\frac{3}{4}$ in maximum aggregate were used in the mix.

The contractors proposed to cast and stress six ribs per fortnight but, in fact, attained a rate of five per week, stressing being carried out six days after casting. The Lee-McCall system of prestressing was used and the ribs were stressed with two  $1\frac{1}{8}$ in diameter Macalloy bars. The length of the ribs necessitated the use of couplers for the Macalloy bars, the two sections of each bar being 62ft long and 5ft 0 $\frac{1}{2}$ in long respectively. To accommodate the large diameter of the coupler factory-made anchor blocks for the lower ends of the ribs were provided with a larger duct. After stressing, the ribs were taken to a special storage area on the floor of the store from which they were lifted into position by a derrick with a 117ft jib.

The roof was formed by concrete planks supported by the ribs. These planks were factory-made and pre-tensioned on the individual mould method; they are 7ft 6in long, 12in wide and 3in thick. Steel hoops project from the ends of each plank. These hoops fit over projecting stirrups on the spine of each rib. Steel bars were passed through the stirrups over the loops to hold the planks in position. The space between the ends of the planks was finally concreted in—the loops and stirrups acting as reinforcement.

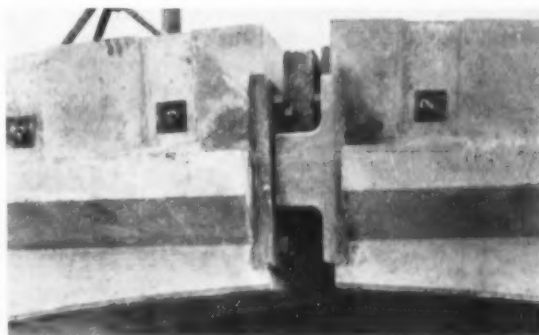
At the apex of each arch two special precast crown slabs span from rib to rib, resting on corbels at the top of each rib. These slabs were tied to each other and to the ribs by seven wire cables stressed on the Gifford-Udall-CCL system. The cables are lapped, spanning from outside to outside of adjacent ribs. A 1in gap was left at the apex between the pairs of crown slabs to preserve the articulation of the arch. The prestressing in the crown provided a tie between the arches until the plank infilling is completed.

The roof of the store has an exterior waterproof finish of two layers of "Cromastic Lastic" with a white sea-shell dusting applied to the top coat before drying.

The ends of the store building are formed by a reinforced concrete frame with brick panelling. The wall at one end incorporated a 17ft 6in-high reinforced concrete retaining wall and the supporting structure for the pneumatic handling plant. This plant conveys the sulphate of ammonia from the adjoining production building—a reinforced concrete-framed shell-roofed structure. The other gable end forms part of the end wall of the bagging house, which is constructed with a conventional reinforced concrete frame. Loading bays with long-span cantilevered roofs run down its either side and it is equipped with modern screening, conveying, weighing and sack-sealing machinery. The contractors for the civil engineering work are the Demolition & Construction Co. Ltd. The precast end blocks and the roof slabs were manufactured by the Liverpool Artificial Stone Co. Ltd., and Anglian Building Products Ltd., respectively.

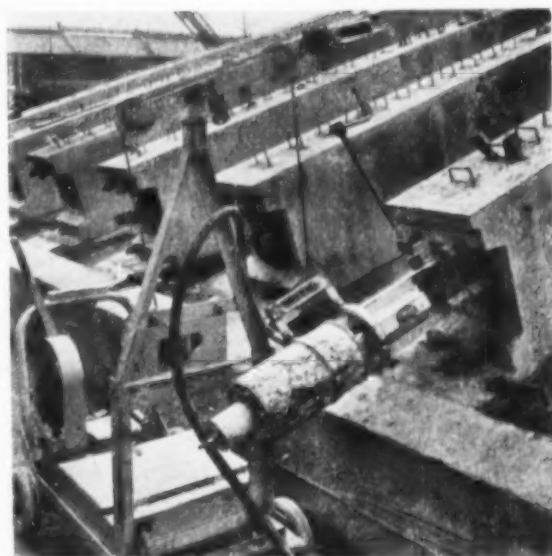


Placing a rib by derrick



"Knife-edge" hinge

Prestressing a rib



## **CENTRAL AMBULANCE STATION, SHREWSBURY for Salop County Council**

C. H. SIMMONS, A.R.I.B.A., Dip.T.P., COUNTY ARCHITECT

**T**HE building has been erected to serve as the central ambulance station and control point for the County of Shropshire. The main garage houses 24 ambulance vehicles and provides repair and service facilities for them at the rear.

The front of the garage itself is the administration block containing the radio control room, from which is directed the movement of all ambulance vehicles in the County. The administration block also contains offices, staff rest rooms and accommodation for night duty drivers.

### **Construction**

The works were commenced at a time when steel was strictly licensed and in very short supply, which would have meant a prolonged postponement of this project. Because it was urgently needed, the construction was changed from steel trusses to timber, and all other units of reinforced concrete were changed to prestressed concrete units including lintols. It is therefore true to say that the building was constructed without the use of steel.

The central heating system was introduced later in the contract when steel licensing was cancelled.

The buildings are constructed with load-bearing brick walls, piers where necessary, and the garage roof trusses, which span 60 feet, are of keruing. The roof coverings are asbestos sheets with inset Perspex sheets for natural lighting, with an inner lining of insulation board to reduce heat losses.

Heating is by low-pressure hot water boilers with automatic stoking, radiators in the administration block and overhead unit heaters in the garage and workshops.

The contract price is £26,000.

*General Contractors:* Messrs. John Bromley & Sons, Watling Street, Church Stretton.

*Sub-Contractors:*

*Metal windows:*  
Messrs. Henry Hope & Sons, Ltd., Smethwick.

*Roofing:*  
Messrs. Walsh Graham, Ltd., Wolverhampton.

*Flat roofing:*  
Messrs. Ruberoid, Ltd., Birmingham.

*Concrete beams and suspended floors:*  
Messrs. Concrete, Ltd., Hounslow.

*Reconstructed Stone:*  
Messrs. Coalmoor Basalt, Ltd., Horsehay, Wellington, Salop.

*Floor coverings:*  
The Marley Floor Tile Co., Ltd., Leighton Buzzard.

*Central heating:*  
Messrs. J. H. Heath & Co., Shrewsbury.

*Electrical installation:*  
Messrs. Thomasson & Co. (Shrewsbury), Ltd., Shrewsbury.

*Glazing:*  
Messrs. Pearce & Cutler, Birmingham.

*Ironmongery:*  
Dryad Metal Works, Ltd., Leicester.

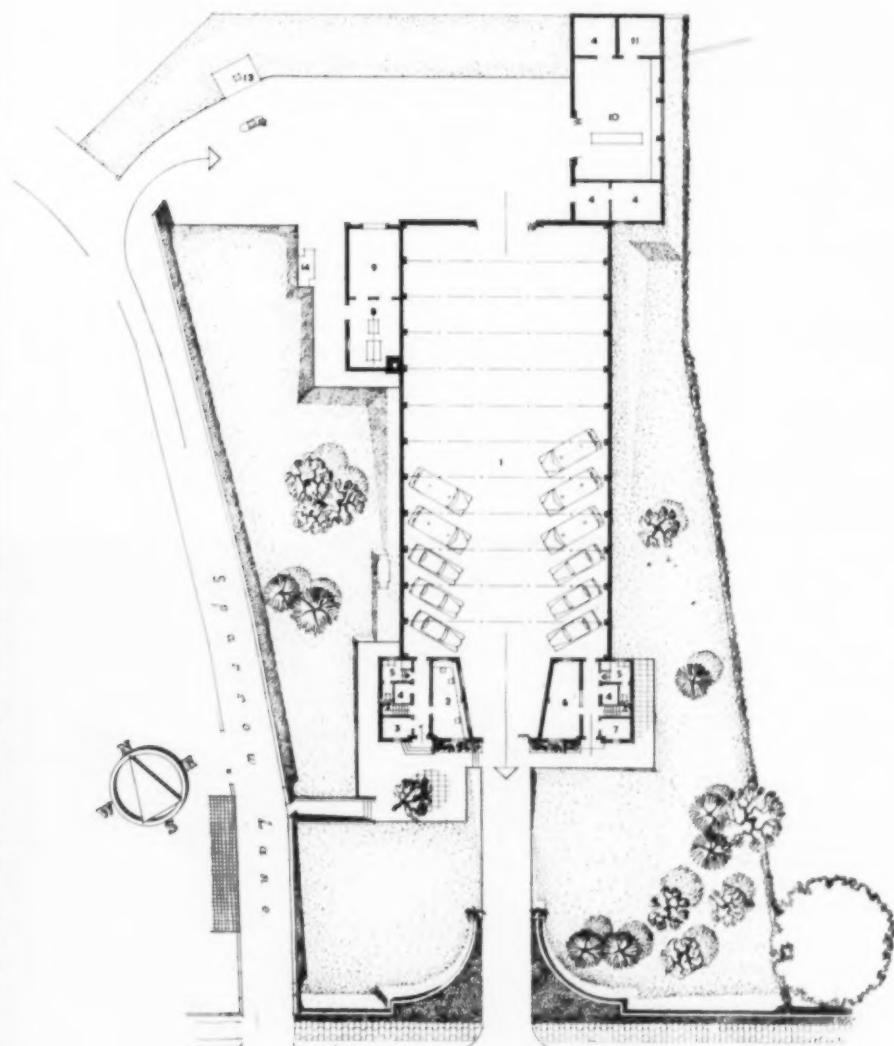




Garage interior



Workshops and service yard

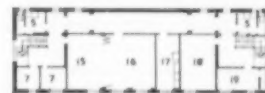


Abbey Foregate



KEY

1. GARAGE
2. CONTROL ROOM
3. SHIFT LEADERS



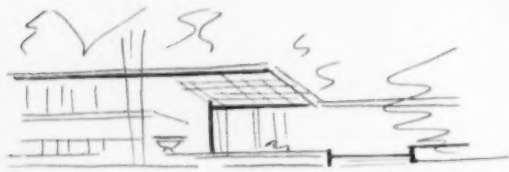
4. STORES
5. LAVATORIES
6. GENERAL OFFICE
7. BUNKS
8. BOILER
9. FUEL
10. REPAIR SHOP
11. BATTERY STORE
12. PUMP
13. PETROL VAULT
14. PETROL INTERCEPTOR
15. MEN'S DUTY ROOM
16. MESS ROOM
17. KITCHEN
18. WOMEN'S DUTY ROOM
19. AMBULANCE OFFICE

## American News Letter—10

**A**N umbrageous architecture, that was the name given by Frank Lloyd Wright to describe his idea for an indigenous American style in the book which introduced his work to Europe (published by Ernst Wasmuth in Berlin, 1910). Its origin was stated to be the influence of the American climate with its extremes of heat and cold. Wright explained one of the most characteristic features of the style in the following way. The overhanging eaves left the house in winter without necessary sun, and this had to be overcome by pushing out window groups in certain rooms and exposures to the gutter line.

With this information it is interesting to look at some of the houses to-day and to observe the effect of the idea. Many of the houses are visually striking and puzzling at the same time because of the discrepancy between what appears to be an emphatically plain and simple roof line and the broken up and complicated wall surfaces below. It is rarely possible to determine by eye just how the roofs are supported at the four corners. The Robie House (1909) takes this situation even further; it gives the impression that there are two long sweeping roof lines intersecting at right angles, whereas an attempt to draw the roof plan shows how complicated the hipped roofs really are.

Undoubtedly the answer to this lies in the fact that Wright was preoccupied with the effort to achieve new architectural form and whether the umbrageous effect was really functional or aesthetic is not, perhaps, too clear. The interior of the Robie House is especially dark, due, I think, to the smallness of the windows "brought out to the gutter line" and the really terrific overhangs at the two sides. But the exterior spatial effects in the two small courtyards below these overhangs entirely justifies them and was to me one of the most impressive features of the house.



Robie House—Roof overhang and courtyard

Another Wright house—one of the most pleasant by modern standards—carries out very clearly another important statement in the Wasmuth volume. This is the Coonley House in Riverside (1908). The statement is to the effect that the individuality of rooms and groups of rooms should be recognized in the plan and become "in themselves small buildings" which, because of efficient hot-water heating, can be spread out and related more closely to the garden or the surrounding country.

The Coonley House does precisely this. Rooms and groups of rooms (hall and living room, dining room and kitchen, sleeping rooms and baths, servants' quarters, etc.) are long and thin, thrown out like arms from a central spine, one of them pierced by an opening through which the main entrance drive passes. Garden courts are formed with low walls at suitable points and one long façade faces a stretch of wooded country.

The size and simplicity of this house gives it the atmosphere of a great monastic cloister, held to the ground by the long roof line of the central spine. At present it is divided into a number of different flats, all large and with adjacent gardens. The white walls, natural wood string courses and panels of brilliant mosaic tile create a pleasant environment with the surrounding trees.

One of the non-residential buildings of this period is the

Unity Temple in Oak Park. The exterior is somewhat heavily monumental but is easily grasped as two halls, one large and cube-like, with a low entrance porch in between. The treatment of the inner space of the large hall is very successful and establishes an excellent feeling of contact within the congregation. The main floor is square with columns at each corner and two steeply raked balconies on three sides. On the fourth side there is the organ and in front of it the pulpit. Natural light enters from the ceiling.

This arrangement establishes the existence of a temple space as the crucial area, and a secondary area all around and just outside it. Although there exists at no point a solid division, both these spaces keep their identity.

Photographs of 30 constructed buildings were included in the Wasmuth book and the exhibition which accompanied its publication. Amongst these were the buildings mentioned above, the Larkin Building, the Isobel Roberts House, Brownes Bookshop and the Winslow House. There were also numerous plans, details and perspectives of projects and ideal schemes. In spite of the variety of fresh ideas which were followed through in this portfolio of work, each scheme was an enlargement of Wright's intuitive idea that space could be moulded in any way inside and outside a building without reference to classical convention. For a European architect it is impossible to look at these early Wright buildings without thinking of their fateful impact in Berlin. When in 1940 the Museum of Modern Art held a Frank Lloyd Wright exhibition it was Mies van der Rohe who paid tribute to the great master whose dynamic impulse came to the European scene just at the moment when it was most needed.

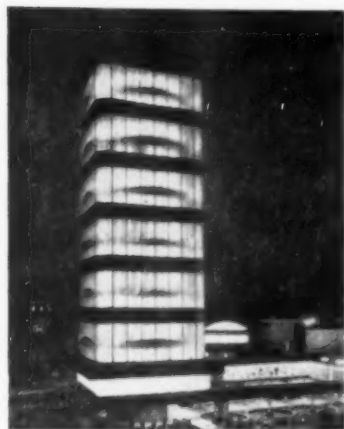
As Mies wrote in the catalogue of the exhibition, "The encounter was destined to prove of great significance to the European development."

Of Wright's later work the Johnson Wax Administration Building in Racine is particularly interesting because of the recent addition to the group of a research laboratory tower and an enclosed courtyard. The original buildings date from 1936-1939, the period which includes "Falling Water" and Taliesin West. The tower was added in 1949.

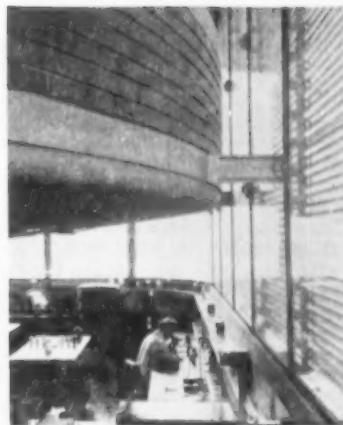
Although the inventive structure and display of ingenuity







Photos: S. C. Johnson &amp; Son Inc.



*"It cannot be denied that the glass tubing has caused endless trouble"*

breaks new ground, Wright's treatment of space is the recognizable link with the early buildings. In this context the new glass tower has done more than add a research department to the group—it has vastly increased the spatial relationships. From the main entrance area the courtyard is not seen at all at once with its three sides of mushroom-shaped columns because the colonnaded link to the central tower cuts across.

What is seen is an exciting overlapping mixture of columns. Four circular pools surround the link columns, and these are actually roofed over though they do not appear to be, so strongly do they form part of the surface of the open court, catching and reflecting patterns of light. The function of this court seems to be the parking of staff and visitors' cars with various garage facilities provided under the colonnade.

The glass tubing used everywhere instead of ordinary sheet glass windows fills the interiors with endless sculptural and textural variations. In the earlier building there are two sizes of tubing used to add variety to the patterns, and at corners where the green cross-section of the glass is exposed at the mitre a vigorous decorative motive appears curiously reminiscent of art nouveau. Inner screens of the tubing are particularly exciting in their effect. On the other hand, in outer walls when vision is focussed directly on the sun, the lines and the concave surfaces produce a violent feeling of nausea. After a time it is possible to avoid catching this effect.

There is also a not unpleasant pattern created by the random occurrence of joints in the rows of tubing. In the case of the 25-ft diameter dome made of receding tubes over the reception room of the Advertising Department the countless random joints become a major feature. Each joint is made by a solid glass dowel which fits into the ends of both tubes.

It cannot be denied that the tubing has caused endless trouble through its failure to keep out heavy rain. The staff seem to have accepted this as a sort of sacrifice for the pleasure experienced in fair weather. It must not be forgotten that to firms like Johnson's Wax and Lever Bros. architecture is advertising. Large parties of admiring visitors tour the Johnson Administration Building every hour all through the day. The interior of the "great workroom," as it is called, is an amazing sight. Here all the administrative staff are gathered sitting at Wright-designed desks amidst screen walls formed out of filing cabinets. Above their heads is a forest of slender white columns. There is a quiet buzz of activity, and every now and then a discreet moving about of secretaries in the vast hall. The floors throughout are kept quite extraordinarily clean and shine with an unmistakable polish.

Recently in Chicago Frank Lloyd Wright appeared at the Goodman Theatre to introduce a performance of Music,

Ritual Exercises and Temple Dances given by his students at Taliesin.

Correlation of mind, feeling and body was, he said, a fundamental necessity for the architect. To the uninitiated in the audience consciousness of rhythm seemed to be the only firm ground in a confusing evening.

The programme included "Hymn to the Sun—a symbolic movement of the planets and their attraction to the Sun," "Canon of Seven," "Prayer—Those Who See Themselves," "Enneagram," "Lord Have Mercy"—with music from a third century Greek hymn, numerous dervishes, and "Halleluya"—an exercise divided into circles representing various levels of being.

The full completion of any form or process leading to an orderly and complete existence—this was the explanation given in the programme notes for the intention of the dances.

Though not on a basis approved by Wright, America is by no means without its rituals and its symbols, as that ally of architects, Saul Steinberg, is continually pointing out in a visual way.

Steinberg trained as an architect in Milan and then worked on a newspaper which was small and appeared twice a week. He was accustomed to fill one whole page with innumerable drawings illustrating a single theme, for example, bicycles, which he would see from countless viewpoints. He left Italy for America in 1941, but spent one year waiting in the West Indies for a visa. When he finally arrived he enlisted in the Navy, was sent to China and then back to Italy, landing, as he says, like a ghost in the disguise of U.S. naval uniform.

He is a believer in the theory that criticisms which cannot be made in a certain manner without giving offence can always be put a different way, the trick being to find that way. He is an acute and critical observer of the American scene.

The Los Angeles area, he believes, is the next America—so many Americans from the mid-west have gone and are going there in large numbers, discovering the real new America.

He is fascinated by, amongst other things, the tremendous significance that can be awarded by social groups to small and innocent objects such as cuff-links, wrist watches, a certain fountain pen, or particular details of dress.

Modern buildings interest him greatly, but he cannot see the buildings without the life enveloped by them.

His drawings have reached architecture as wallpapers, related scenes which repeat and form patterns. One of these stimulates diners from the walls of the delegates restaurant in the U.N. Centre in New York. Another performs a similar function in Cincinnati's new hotel skyscraper designed by Skidmore, Owings and Merrill.

This summer the Museum of Modern Art selected for

## American News Letter

its garden exhibit a Japanese house. Visitors were given a pair of paper sandals and a large paper bag in which to carry their shoes. The materials which can be used for floors and verandahs subject to the wear and tear of feet encased in paper are a surprise and a delight. The only area really designed for strenuous activity was the kitchen stove, which was surrounded by loose earth.

Gardens play a large part in the design of the house and also verandahs, that is, covered areas from which to observe the gardens. A distinction is made between this verandah area protected from the rain and another which is unprotected and circles the house. A separate building connected to this by a bridge is the tea ceremony room, creating a small garden court with water and shrubs.

Related to the idea that this house is to be protected from strenuous activity is the movable character of interior wall screens and sliding doors. If life is to be of a contemplative character such things can be made in a simple though fragile

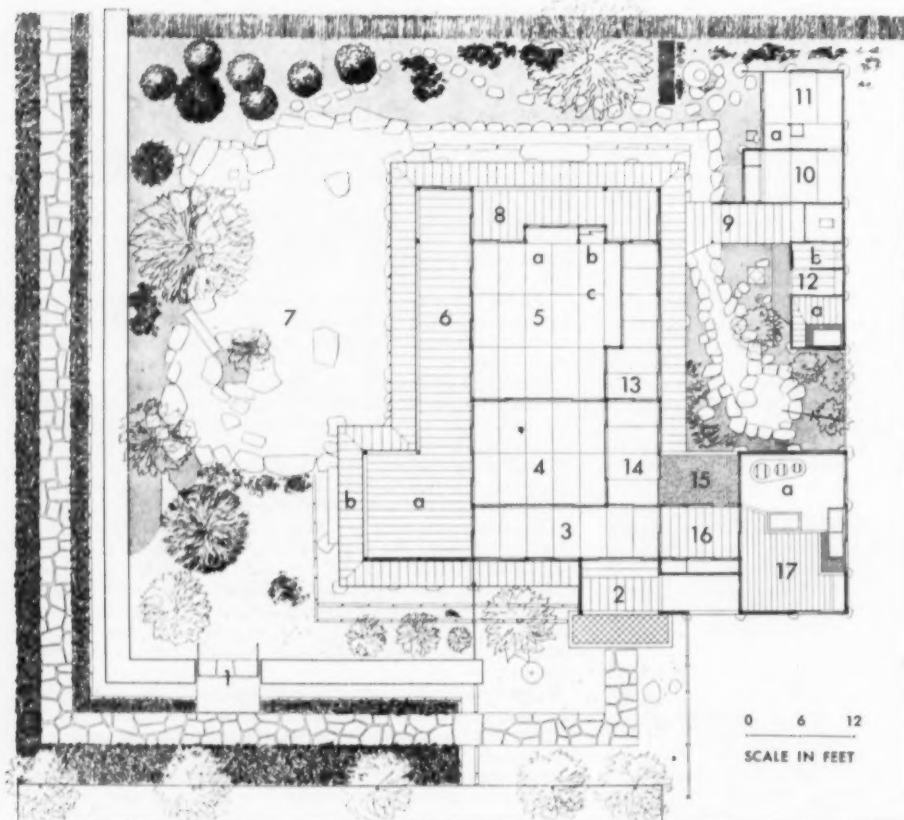
way with full confidence that they will be honoured and not destroyed by use. The western problem is to provide these same facilities in a sturdier environment.

As Arthur Drexler, Curator of the Department of Architecture and Design of the Museum points out in the introduction to the house, the Japanese do not use furniture.

Low tables, portable screens, chests of drawers and boxes are provided, but these are not left about when they are not in use. Western houses, whether traditional or modern, are varied collections of furniture and equipment. The Japanese house begins to develop its aesthetic relationships of ornament and structure at the point when Western houses install three-piece suites and dining tables.

A certain form of compromise can be offered by modern designers. The Museum appreciated this fact and, as Arthur Drexler says, chose a Japanese building for display because of its unique relevance to modern Western architecture.

GEOFFREY HOLROYD.



## JAPANESE EXHIBITION HOUSE

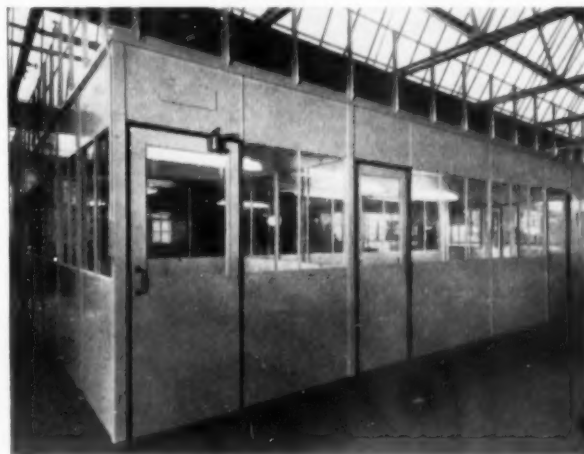
designed by Junzo Yoshimura

"Gardens play a large part in the design of the house"

FOR NEW DEVELOPMENTS  
IN METAL WINDOW DESIGN  
CONSULT

# HOPE'S

*pioneers since 1818 with the cup pivot lok'd bar joint,  
cam opener, 2-point handle and friction hinge*



## HOPE'S DOUBLE PANEL SCREENS

A flush-surface screen in which dust-catching ledges are practically non-existent. Ideal for hospitals, offices, laboratories and special process rooms.

**HENRY HOPE & SONS LTD**

*Smethwick, Birmingham & 17 Berners St., London, W. 1*

MEMBER OF METAL WINDOW



MANUFACTURERS ASSOCIATION

## *The shades of night were falling fast*



Yet it was but three in the afternoon of an English Summer day. Peering distractedly at the specimens before him, the Colour Matcher felt the onset of a Black Despair and uttered an Awful Oath. His distress was great, for he was engaged upon a Rush Job for a Very Important Customer.

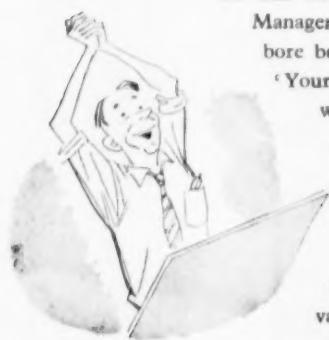
At that very moment appeared the Works Manager, a kind and sagacious man, who bore before him a very Strange Device.

'Your perplexities are ended,' said he 'for this

wondrous affair will make light of your problems. This, my care-worn friend, is the Siemens Industrial Colour Matching Unit.

Marvellous to relate, it produces a high-intensity light identical to daylight itself, at a colour temperature of 6500—7000°K. And, unlike the light against which you now wage a losing battle, it *never varies*.'

The Colour Matcher, unbelieving, plugged in the Strange Device. He turned the switch... and there before his eyes was the precise match he had so long and vainly sought. 'Excelsior', cried the Colour Matcher.

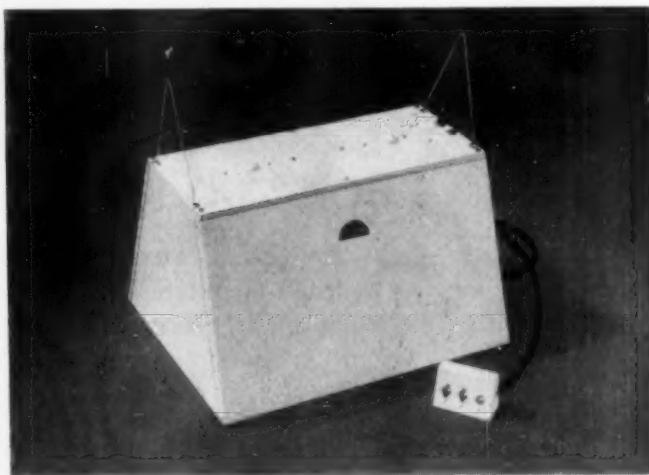


### **SIEMENS INDUSTRIAL**

### **COLOUR MATCHING UNIT**

FTF.2444

The Technical Details about this exclusive Siemens production are contained in an illustrated folder which we will gladly send on request.



# *Make light of it with* **SIEMENS**

SIEMENS ELECTRIC LAMPS AND SUPPLIES LIMITED, 38-39 UPPER THAMES STREET, LONDON, E.C.4



# The Ministry of Works

WHEN showing a group of foreign architects, many with official contacts in their own countries, around England it was several times remarked that many references were made to the activities of the Ministry of Works which seemed to have to cover a very wide scope. I was asked if it was possible to set down and send to certain of them a broad description of where and how the Ministry fits into the general pattern of building in this country. To meet this request it has been necessary to make a number of enquiries to ascertain the full scope of the Ministry's activities and it may be that members of the building industry are similarly not too well informed on this subject, thus the following information may help others to know the extent of the Ministry's ramifications and the services it sets out to provide.

The main functions of the Ministry of Works are: the provision of office accommodation for Government Departments (including public buildings overseas) and of many other types of accommodation when required by Civil and Service Departments; the design, purchase, supply and maintenance of furniture and equipment for Government Departments and certain other bodies, and the supply of fuel, household articles and stores; the administration of the Ancient Monuments Acts and the maintenance of those ancient monuments and historic buildings which are in the Ministry's charge; the maintenance of Royal Palaces and certain official residences; the "physical" arrangements (architectural and engineering services, etc.) for certain State ceremonial occasions; the management and maintenance of the Royal Parks and certain other open spaces.

The Ministry has also responsibilities for the building programme and towards the building and civil engineering and building materials industries, including: oversight of the national building programme; maintenance of list of building and civil engineering undertakings; oversight of the production of certain building materials and fittings; consultation with the industries at national and regional level; encouragement of apprenticeship and training in the building and electrical contracting industries; promotion of efficiency and productivity of these industries; review of building research and development work to meet the industry's requirements, and ensuring that results of research are made available to the industry.

The staff of M.o.W. numbers about 13,000, of whom about 8,000 are at London H.Q. and the remainder in Regional offices (including Scotland). In addition, the Ministry employs some 18,800 industrial staff on build-

ing and engineering work, supplies and transport services.

The Scottish headquarters, in charge of an Under-Secretary, has groups responsible for accommodation of Departments in Scotland, for control of building programmes, licensing and materials, for contracts, supplies and ancient monuments, and a Director of Works and Services responsible for works services, architects, surveyors, engineers, etc.

Regional offices are under a Regional Director (Wales has a "Director for Wales") and are organized in four groups: Administration; Works services and supplies; Building industries (licensing, Regional Joint Committees, distribution of building materials); and Lands and Accommodation Services.

The functions of the Directorate of Works fall into three broad groups:—

(1) Design and erection of public buildings, either as a charge on the Ministry's Vote or at the expense of other Departments or official bodies.

(2) Maintenance, repair and alteration of buildings, including leased and requisitioned buildings, for which the Ministry is responsible.

(3) Advice to Departments and other authorities on building and civil engineering problems, including Civil Defence matters.

The Directorate is organized on a broad functional basis corresponding to the professional functions of architect, engineer and quantity surveyor. Maintenance is the responsibility of a Director of Maintenance Services. The groups are provided with general clerical and office services by a Works General Branch.

The Ministry's activities cover a wide range, e.g., Post Office Services, research buildings, buildings for Social Services, Atomic Energy Establishments, Aerodynamic Research Establishments, Housing and Married Quarters, etc.

New works to the value of some £35,000,000 are provided for in the financial estimates for the current year. Maintenance services in the same period will cost about £20,000,000 for some 18,000 buildings for which the Department is responsible.

The Ministry of Works Library, created primarily to serve the technical branches of the Ministry, covers building in all its aspects and particularly with regard to materials, equipment, methods of construction, labour, legal and social aspects. It does not attempt completeness in the field of architecture, nor the more scientific aspects of building; nor aspects of town and country planning except in so far as they directly affect building; nor the larger works of civil engineering. Within these limits it aims, however, at as com-

plete a coverage of the literature of building as possible.

The Library has a collection of trade catalogues which aims to be as complete as possible with reference to British products. The manufacturers' claims are summarized for each product, and the information filed on cards for immediate reference by visit or telephone. The library does not handle information on prices, nor does it express an opinion as to the value of the product.

## Technical Information Service

The M.o.W. Technical Information Service was set up in 1950 to encourage the application of new knowledge in building and the spread of up-to-date standards of good practice. Its aim is to draw attention to the results of scientific research and development and to help individuals both to identify opportunities for using up-to-date knowledge and to apply that knowledge to their own particular problems; it is also to keep research organizations aware of local interests and difficulties. The scope of the service includes all matters on site organization, costing, programming and progressing as well as methods of construction and the behaviour of materials. It does not, however, deal with wages or working agreements or give the kind of advice normally obtained from professional consultants.

The work of the Technical Information Service is regularly reviewed by the Ministry's Advisory Council on Building Research and Development, which advises on the scope of the national research programme and its adequacy to building needs and also on action required for spreading knowledge of its results and encouraging their application.

The Service is available to everyone concerned with building but it is to the smaller firms that it has most to offer. Large firms in the industry can be expected to keep in touch with new developments, but much of the work in building and in the associated professions is handled by smaller firms with fewer resources for keeping abreast of progress in so wide a field or for interpreting scientific and technical publications to their own advantage.

The Technical Information Service is operated by Technical Information Officers at the Ministry's headquarters in London, Edinburgh and Cardiff, and in each of the Regions, with the guidance and help of a central unit in London. Their work extends and complements the services offered by central research organizations and helps and encourages members of the industry to use the facilities which these organizations provide. It is often easier to discuss difficulties on the spot than to write about them and the Technical Information Officers are available when

and where they are wanted. They have access to sources of up-to-date information and to experts in every field; if they cannot always give the answers to particular problems themselves they know where to go for advice and how best to obtain it.

Besides dealing with technical enquiries of every kind the Technical Information Service arranges exhibitions and displays, lectures, films showings and discussion meetings. These events are open to everyone concerned with building; their purpose is to arouse general interest in the results of research and development, to give examples of the latest practice and to indicate the kind of information that is available.

Important exhibits are staged at the major building trade exhibitions and each year about six Building Weeks are organized in different parts of the country. Each year also a major demonstration of mechanical plant and powered hand tools is arranged. In addition small travelling exhibitions are provided for showing at provincial centres either as self-contained units or as part of larger events arranged by local organizations. Each winter the Technical Information Service organizes a programme of some 250 technical lectures at various centres throughout the country.

The Technical Information Officers help local organizations to arrange discussions and "brains trusts" as an effective means of stimulating interest and exchanging views on up-to-date building practice.

The headquarters unit prepares the M.O.W. Advisory Leaflets, which are specially designed to give these groups up-to-date and authoritative information in clear terms. This series of Advisory Leaflets is published at a low price by Her Majesty's Stationery Office and over 1½ million copies have already been sold.

The Technical Information Officers are always willing to give general information on technical matters but their main aim is to find practical answers to practical problems; their job is to seek the particular reason for an enquiry and to attempt to deal with it even if this involves a personal discussion with the enquirer and visits to the site.

## DUTCH UNCLE

### R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities held on October 6, 7 and 8, 1954, fourteen candidates presented themselves and the following were successful: Sidney J. Adkins, John D. Aldous, Walter H. Couperthwaite, William L. Ikin, Henry C. Johnson, Peter Miller, George Warrington, Thomas Whittaker.

## In Parliament

### Industrial Development

Mr. Jay asked the President of the Board of Trade by what method, in the absence of building licensing, he proposed to carry out the policy of securing a balanced distribution of industry throughout the country. Mr. Henry Strauss, Parliamentary Secretary, answered by appropriate use of the powers conferred by the Distribution of Industry Acts, 1945 and 1950, and Section 14(4) of the Town and Country Planning Act, 1947, and by advice to industrialists wishing to establish new factories.

Mr. Jay asked if the Minister was satisfied that the provision in the Town and Country Planning Act was applicable not merely to the balanced distribution of industry within the locality but to the balance of distribution throughout the country between congested and under-employed areas. Mr. Strauss said it was a complex problem. The control by licensing was replaced by the methods under the Planning Act by a decision of the Labour Government, and was inevitable he thought unless building licensing was to be permanent. Mr. Jay pressed the point that the abandoning of building licences raised the question in an acute form, and it was important to know what the powers were. Mr. Strauss said that even before the formal abolition of building licences the method of inducing industry to go to specific places was that started and developed by the previous Government. (Nov. 9.)

### Claims and Payments

The War Damage Commission according to an answer given by Mr. Henry Brooke, Financial Secretary to the Treasury, accepted 177 claims between January and October this year. In 1949 the number accepted was 3,563,190; in 1950 and 1951 the numbers were 3,528 and 2,051; and in 1952 and 1953 they fell to 895 and then 470. The total amounts paid by the commission since the peak of £856 millions in 1949 have been successively—£92 millions, £72 millions, £57 millions, £38 millions, and between January and October this year £27 millions. (Nov. 9.)

### Prefabricated Existence

The Minister of Housing and Local Government informed Mr. Steward that about 125,000 prefabricated temporary houses were built in England and Wales under the provisions of the 1944 Act. He added—I cannot say how long they will be retained. Up till now some 700 have been demolished or destroyed. (Nov. 9.)

### Unidentified Savings

Mr. Porter asked the Minister of Housing and Local Government what was the saving in brickwork, measured in cubic yards, between a present-day


three-bedroom type house and a similar type built in 1948. Mr. Sandys pointed out that the quantity of bricks needed varied widely, according to the extent to which substitutes were used. It was therefore difficult to make any reliable comparisons. He also said that no information was available of the estimated saving in time and money of the curtailment of built-in cupboards and wardrobes in present-day houses compared with those built in 1948. (Nov. 9.)

### Helicopter Landing Sites

Mr. Dodds asked what investigations had taken place in recent months into the suitability of utilizing the roofs of London railway stations as possible helicopter stations. Mr. Boyd-Carpenter, Minister of Transport and Civil Aviation, stated that he had recently completed an investigation into the practicability of rooftop sites for helicopters over Waterloo and Cannon Street Stations and at a site near St. Pancras. The last was unsuitable because of surrounding buildings; at the other two stations roof-top platforms could be constructed at very considerable cost, but it was doubtful if they would be large enough for helicopter traffic hoped for in the future. (Nov. 10.)

*Staircase in house at Colley Way, Reigate, architect, George Lowe, F.R.I.B.A., published in our issue of July 22, 1954. Through a mistake in our records this picture was published on page 717 of June 17 issue as part of the Cranford School. Architect Dennis Clarke Hall.*





A large, 63-year-old house was fitted, four years ago, with a modern oil furnace, thermostatically controlled. When oil rose in price a four-inch layer of Fibreglass was laid on the attic-floor. No other insulation was installed, or alterations made to the house or thermostat settings. Yet, in one year the oil consumption was reduced by 44%—a clear saving of 910 gallons, which would have cost £54—more than double the cost of the Fibreglass. And you can insulate a 3-bedrooomed house, with Fibreglass, just as effectively for £7.

*wrap it in*

**FIBREGLASS**

TRADE MARK

DURABLE, FIRE-SAFE, ECONOMICAL — AND AVAILABLE NOW

Fibreglass Limited, Ravenhead, St. Helens, Lancs. (St. Helens 4224)





303



749



302



421

## THE CLOCK ON THE WALL

No longer an afterthought, the clock on the wall is often planned with the wall itself, as integral a part of a new building as, say, its lighting system.

As one clock on one wall, or as a hundred 'Slave' clocks on a hundred walls, synchronized to a 'Master', Gibson clocks are specified at the blueprint stage, for hospitals, schools, factories, or wherever accurate time-recording is a necessity.

Because they are worked off batteries charged from the mains, these clocks are aloof from power cuts. The available designs are varied and good—special designs can be carried out.



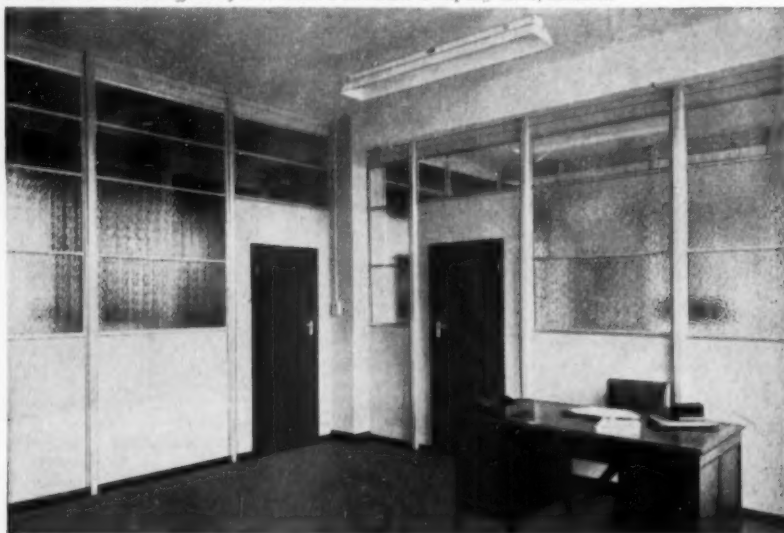
**Gibson**  
CLOCKS  
are made by—

**BAUME & CO. LTD**

1, HATTON GARDEN, LONDON, E.C.1. CHANCERY 4331

Demountable partitioning by Compactom in the  
St. Swithin's House offices of The Shell Petroleum Company Ltd., London.

When  
you  
decide  
to  
divide . . .

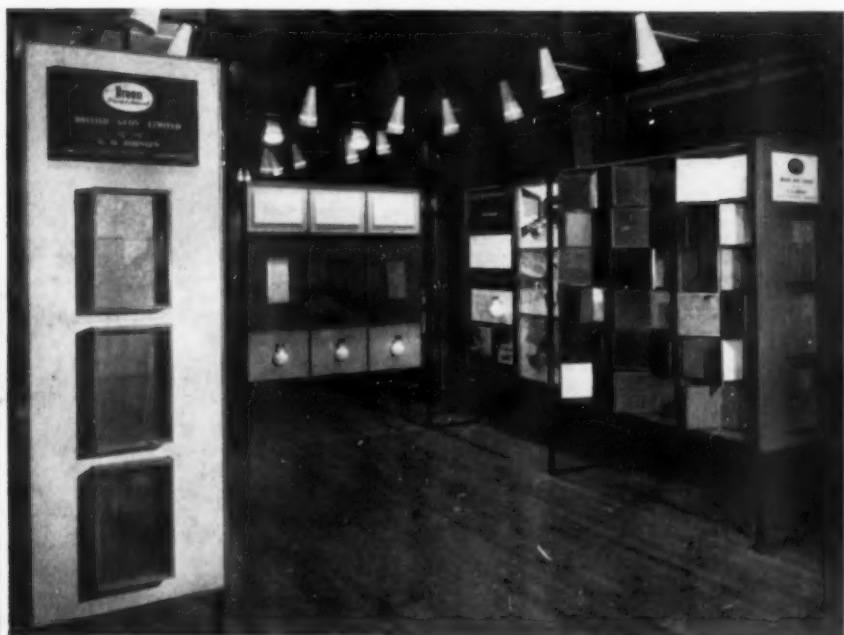


■ ■ ■ you'll find the most suitable materials and  
finishes for all requirements combined in Compactitioning —  
the complete, individual service of

**COMPACTOM PARTITIONING**

Write for full details to . . . . . **COMPACTOM LTD., OXGATE LANE, CRICKLEWOOD, LONDON, N.W.2**  
Telephone: GLAdstone 2600, 8887





The Oslo Exhibition

## A New Demountable Exhibition

designer: IAN BRADBURY, M.S.I.A.

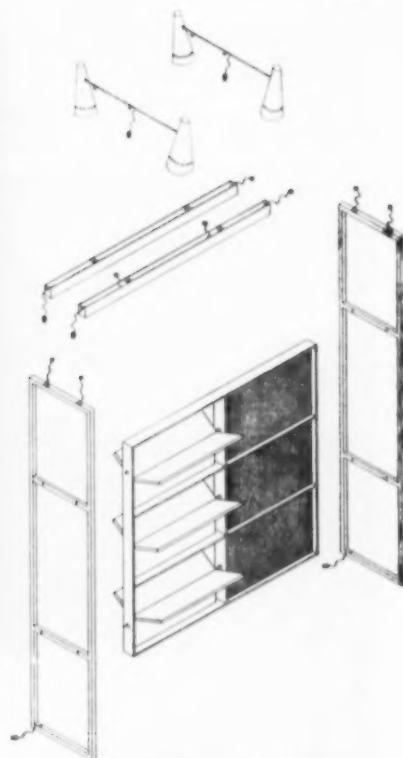
**B** RITISH GEON, Ltd., a plastics company in the Distillers Industrial Group, required a demountable travelling exhibition featuring Geon (Breon) PVC and its applications.

These requirements were met by designing the exhibition as a series of display panels 4ft 6in square and 1in thick, supported at each end by metal ladders 7ft 6in high and 1ft 6in deep, positioned at right angles to the display. Each unit panel carries display material on both sides. Variety is given by treating each half differently. Some halves contain three-dimensional displays featuring important groups of products made with Breon PVC. For

example, 108 examples of PVC leather-cloth are arranged on vertically mounted rotating panels in one section of the display. Other panels show typical products against background photographs illustrating their uses.

The hardwood frames round the display panels are fixed by brass cups and screws to facilitate alterations. All copy panels are fixed by bevelled battens thus enabling the panels to be interchanged and replaced by others as required.

The metal ladders are made from  $\frac{1}{2}$ in sq sectioned mild steel tube and are fitted with "keyhole" slots. Suitable studs fixed to the panel ends



ONE BAY EXPLODED

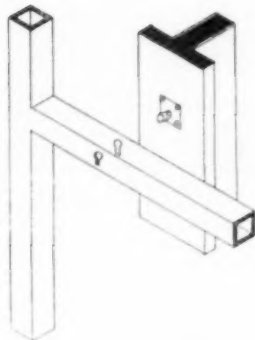
make it possible for these to fall easily into the slots. Overhead electric wiring troughs and lights are fitted into place and the exhibition is complete.

The finishes used are as follows: The metal ladders and wiring troughs are stove enamelled matt black, the light shades and rods are stove enamelled matt white, and the hardwood is polished mahogany.

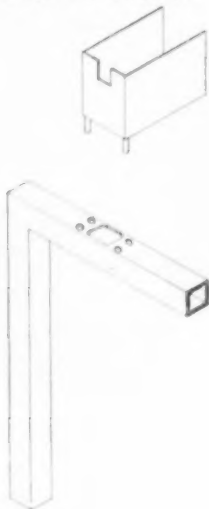
The exhibition was built by G. & W. Waller, Ltd., and was assembled for inspection in London, dismantled, packed in eight crates and shipped to Oslo. At the International Plastics Exhibition there it was erected in a few hours on site No. 25.

### CONSTRUCTIONAL DETAILS

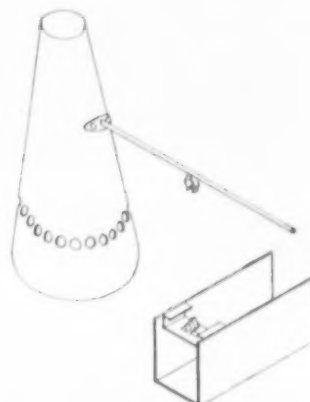
#### LADDER TO PANEL



#### TROUGH TO LADDER

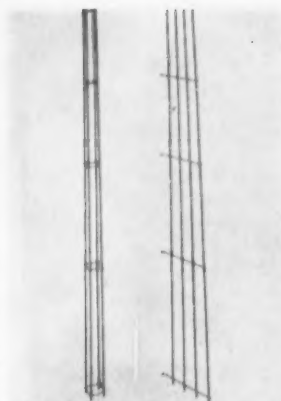


#### FITTING TO TROUGH



## MOSAICS

### STRUCTURES MISCELLANEOUS A12/5

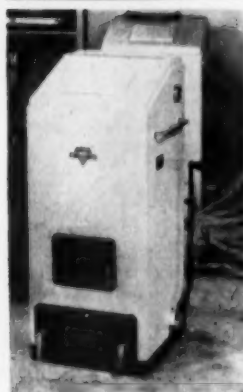


This type of rigid reinforcement cage of welded construction for use in concrete fence posts has been produced by V. Wright (Leeds) Ltd., Stillhouse Wire Works, Waterloo Road, Hunslet, Leeds, 10. They are supplied in the form of a flat mat with the projecting stirrups hooked for ease of transport. A simple bending jig is loaned to the customer and the cage can be completed in a few minutes on the site. An increase in strength of about 20 per cent is claimed for the finished post, due to correct positioning of the reinforcement.



### SERVICES LIGHTING FITTINGS B1/84

The new "Klamplight" adjustable lamp has been produced by Pinner (Klamplight) Sales and sole distributors are Battenberg & Co. Ltd., 7 & 8, Gt. Winchester Street, London, E.C.2. Built in selected beech wood it is virtually shock proof and positions can be adjusted with a touch so that the light can be directed to where it is needed. It is made in five models with either a weighted base or easy-fixing light clamp. Each lamp is wired complete with switch and shade.



### SERVICES WATER HEATING B6/29

This new "C" series automatic heating and domestic boiler is the product of Trianco Ltd., Imber Court, East Molesey, Surrey. The boilers have been designed to ensure maximum heat release from solid fuels by complete smokeless combustion at high temperatures through injection of secondary air. They provide both central heating and hot-water and range from 80,000 B.T.U. capacity upwards. Cleaning the boiler is effected by simple movement of side lever which ejects clinker. Finished high-grade stove enamel in white and a variety of colours.



### FITTINGS BATHS, ETC. C2/25

The "College" porcelain enameled bath, by W. H. Mickelthwait & Co. Ltd., Clough Works, Clough Road, Rotherham, has been designed for Hospitals, Maternity Homes, Old People's Homes, etc. It is low to the ground, being only 15½ in from rim to floor. Two levels of bathing are available by the use of an adjustable wooden seat. A special roll grip forms the rim of the bath. Measurements—overall length 5ft 6 in x width 2ft 4 in—inside length 4ft 10 in x width 2ft 0 in. Finish: Porcelain enamel in white, green, ivory, primrose, blue, amber and pink.

## INDUSTRIAL NOTES

● The British Trade Fair at Baghdad, which opened on October 25 and ended on November 8, has proved a resounding success. The number of visitors exceeded all expectations—over 330,000 (the total population of Baghdad is only about 550,000). They included trade buyers not only from Iraq but also from Lebanon, Syria, Jordan, Saudi Arabia, Kuwait, Bahrain and Persia, and even from as far afield as the Sudan, India and Pakistan. They also included many influential personages from neighbouring countries, e.g., four Ministers from Jordan, and the Lord Mayors of Jerusalem and Amman. The Arab Chambers of Commerce arranged to hold their annual meeting in Baghdad during the fair, and the 300 delegates, all important businessmen, made a personally conducted tour.

It is not possible at this stage to make an assessment of the volume of business done, since many important contracts remain to be finalized. It can, however, be said that practically no products on show remain unsold. This includes the prefabricated buildings which housed the exhibits. Even the ice-rink, intended primarily as a demonstration of British refrigeration and air-conditioning and as a public attraction, in both of which it was highly successful, has been the subject of several offers as it stands.

Substantial sales and numerous enquiries have been reported for furniture, domestic appliances including cookers, washers, mixing-machines and weighing-machines; contractors' plant, such as excavators, draglines and cranes, many of which have been sold "over the counter"; refrigerators; heavy electrical equipment such as generators (which supplied the lighting for the fair); building equipment and prefabricated buildings; air-conditioning plant; metal-work and wood-working machines.

● Mr. W. M. de Majo, M.B.E., M.S.I.A., well-known London designer, has been appointed consultant designer to the Brades & Nash Tyack Industries group, Britain's leading and old-established makers of quality hand tools. His immediate task will be the preparation of an overall design programme, concentrating on the presentation and packaging of over 1,000 different products. It is believed that this redesign programme is one of the most ambitious undertaken since the war by any manufacturer and designer in this country.

● Expandite, Ltd., have announced the following appointments:—Mr. R. A. King, to be Area Manager based on London; Mr. A. Burn, to be Area Manager covering Northern Area; Mr. R. Bell, to be Area Manager covering Western Area. These appointments follow the recent engagement of Mr. T. Pooley as Sales Manager. Mr. Pooley was previously Overseas Manager of Semtex, Ltd.

● British Insulated Callender's Cables, Ltd., announce that, from November 1, their Bedford Depot is closed down. The new depot is at 81 Dumfries Street, Luton, Beds. The telephone number of the new Luton Depot is Luton 6866. Mr. W. H. Spillman, is in charge.

● Messrs. Sir W. A. Rose and Co., Ltd., have appointed Mr. E. A. Pickering as their representative for the counties of Hampshire and Dorset, the Isle of Wight and parts of Wiltshire.

## Another Reason why it's to your advantage to use a . . .



*The bright beauty and easy-clean properties of Semastec Decorative Tiles make them particularly suitable for use in this STUTTGART self-service store.*

## comprehensive flooring service

Semtex service starts in the laboratories at Fort Dunlop and Semtex House, where research and development work is constantly in progress on tomorrow's flooring materials. It was this work that perfected the highly attractive Semtex floors that are coming increasingly into use all over the world.

The Semtex Company gives advice on any flooring problem. It will design floors for any purpose. And specialised operatives will lay the floor expertly. But the Semtex service does not end even there. A maintenance department exists for the benefit of clients who wish to have their floors kept perfect, under contract. These are the advantages of a comprehensive flooring service. May we tell you more about it?

# SEMTEX

INTERNATIONAL FLOORING SERVICE

SEMTEX EXHIBITS AT



SEMTEX LTD • A Dunlop Company • SEMTEX HOUSE • THE BROADWAY • WELSH HARP • LONDON N.W.9

## STANDARD METAL WINDOWS

This illustration shows HENRY DICKENS COURT, West Kensington  
(Architects: *Armstrong & MacManus F/RIBA*), which has been fitted with CRITTALL  
STANDARD METAL WINDOWS POSITIVELY RUST-PROOFED by the hot-dip galvanizing process.

Although in the past sixty years the Crittall business has grown so greatly, the making of metal windows is still very much a family concern—in both senses of the word. For the growth of the organisation can be traced to a simple determination and a constant concern that, in every detail, the name Crittall shall continue to represent the best in design, manufacturing technique, finish and service.

# CRITTALL

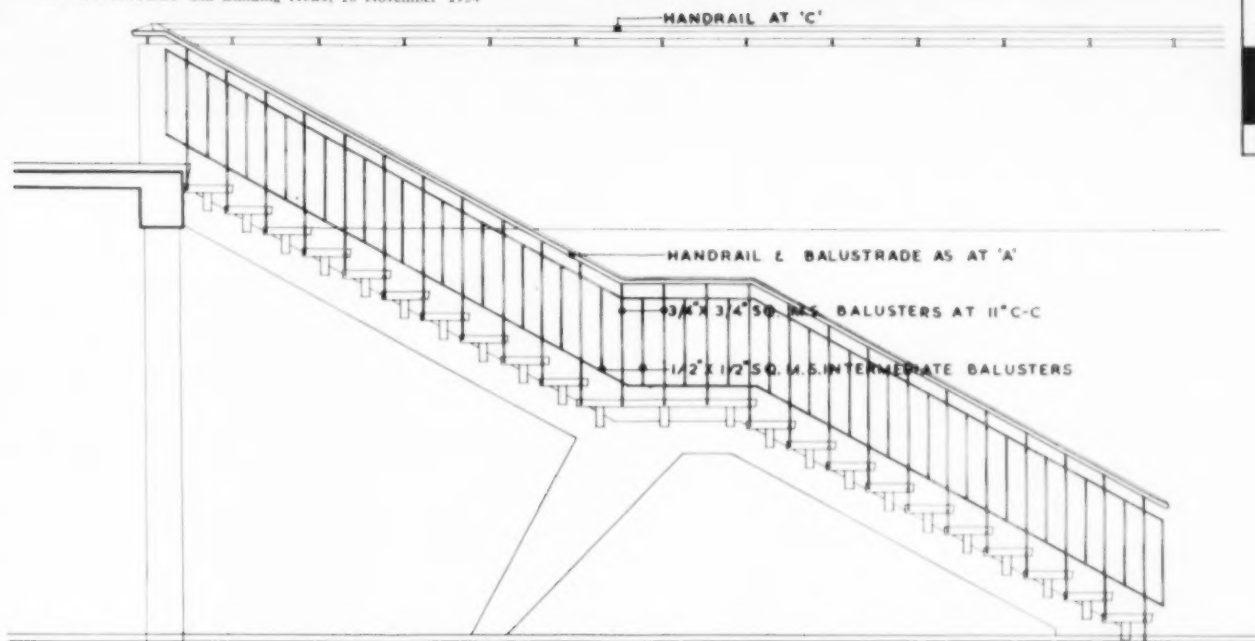
THE CRITTALL MANUFACTURING CO. LTD • BRAINTREE • ESSEX

vw01

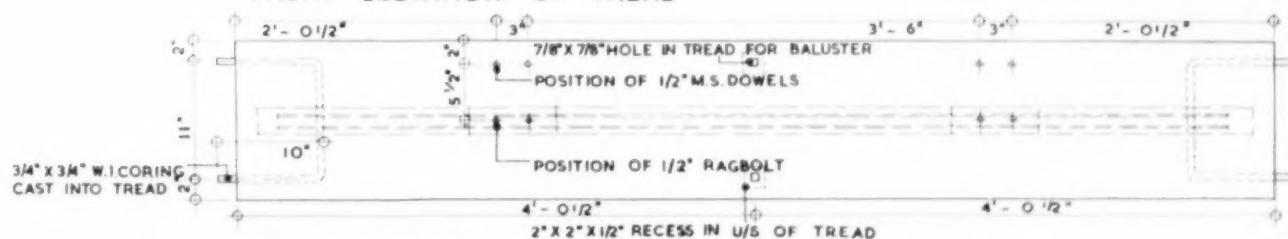
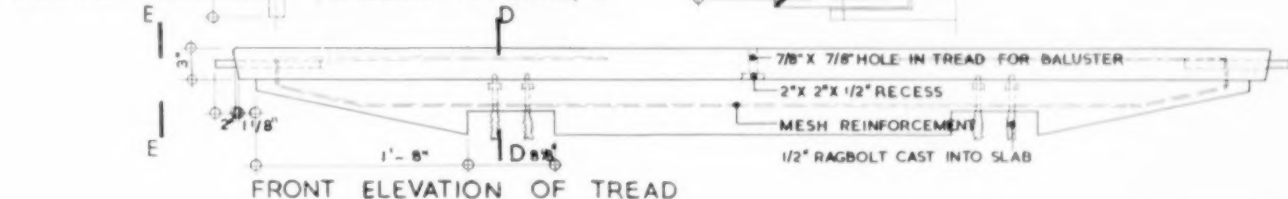
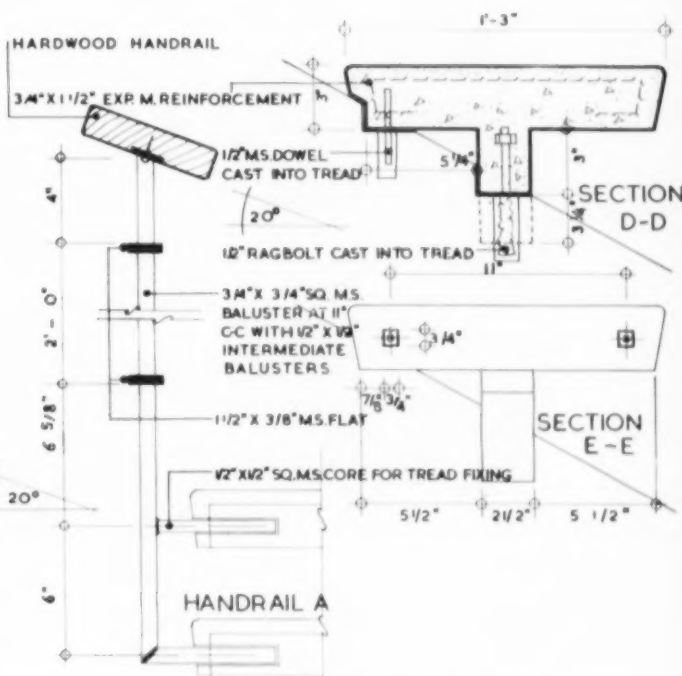
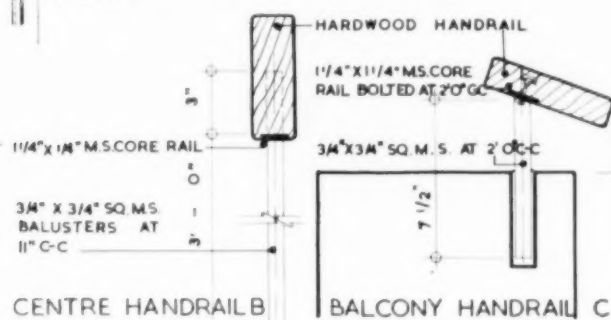
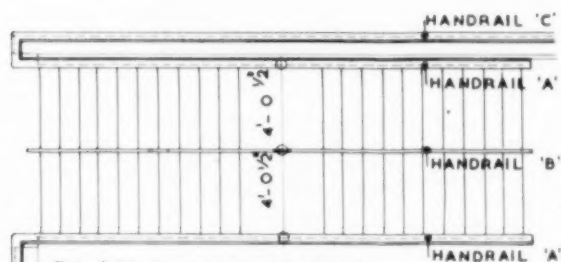
Factories and Depots throughout the country

HARLEY HOUSE





ELEVATION • 1/4" TO ONE FOOT.





STAIRCASE, SCHOOL AT CRANFORD

ARCHITECTS: DENIS CLARKE HALL, F.R.I.B.A.

# ELECTRIC LIGHTING

## BASIC PRINCIPLES

Artificial light is required in a building to enable the occupants to continue their activities when the natural illumination falls below a certain level. It is the function of the lighting installation to provide enough light for this purpose, in such a way that the eyes can work effectively, free from strain, and in pleasant comfortable conditions whatever the tasks they have to perform.

### Illumination and Visual Response

Provided there is enough light, an object is seen by means of the light reflected from it into the eye, and distinguished from its surroundings by difference in brightness or colour or both. In general, the more light an object reflects, the easier it is seen: the darker it is, the greater the illumination required to see it.

Increasing the illumination from 1 to 10 lumens per sq. ft. will produce as much change in visual sensation as an increase from 10 to 100 lm./sq. ft. (both being increases of 1,000%) although the light added is only 9 lm./sq. ft. in the first case compared with 90 lm./sq. ft. in the second. It is a sound suggestion to increase the illumination of an apartment from 5 to 10 lm./sq. ft., but pointless to raise it from say 20 to 25 lm./sq. ft. for no marked improvement would then be noticed, although the increment is 5 lm./sq. ft. in each case. This is because the first increase is 200%, the second only 25%.

### Recommended Illumination Values

The illumination values given in Table 2 are minima abstracted from the most recent official recommendations, and may be exceeded with advantage in many circumstances. Sewing and similar work on dark material requires more light than reading. Seeing is quicker with increased light: if work has to be done where vibration occurs (e.g. in a moving vehicle) particularly good lighting is required. Old people need considerably more light than young people to perform the same tasks.

### Reflection and Absorption of Light

The eye receives light not only from the light source itself, but indirectly, i.e., reflected from surfaces within the field of vision. Reflection may be *specular* as from a mirror, where the incident light rays are reflected at definite angles (the angle of reflection equals the angle of incidence); *diffuse* as from a uniform matt surface where they are scattered and the reflected light is distributed in all directions in front of the surface; or *spread* which is a special form of diffuse reflection having a preferential direction, and being characteristic of the surfaces of many materials. See Fig. 1.

Only part of the light emitted from the lamps is received as useful illumination on the working plane. Walls, ceiling, furnishings, floor and the light fittings themselves absorb a considerable amount and it becomes necessary to know what proportion of the light that escapes from the fittings is reflected from the surrounding surfaces and contributes to the illumination at the required level. In the majority of cases the colours are matt, and the reflection from the coloured surfaces is therefore diffuse. Table 3 gives the Reflection Factors (i.e. the percentage of reflected to incident light) of a selection of colours.

### Shadows

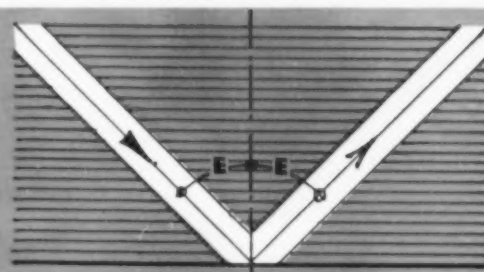
The quantity of useful light is still further reduced if obstructions are allowed to cast shadows over the work. In many cases this can be avoided by more careful siting of the light fittings in relation to the worker and the work; for example, in some commercial installations it is sufficient if the shadows are weakened by reducing the spacing between light fittings or by installing fluorescent lamps, so that a greater proportion of light flows round the obstruction.

On the other hand, shadow is a valuable asset in shop window and exhibition display, and is sometimes used in some processes to pick out objects from a background of the same colour.

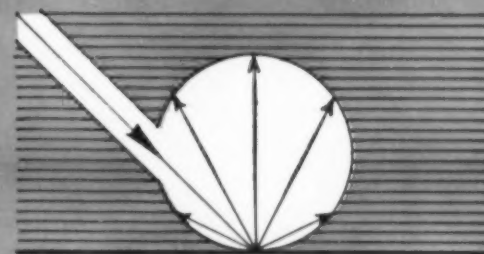
TABLE 1 NATURAL ILLUMINATION

SITUATION	ILLUMINATION
In the sun	10,000 lumens per sq. ft.
In the shade outdoors	1,000 lm./sq. ft.
Under a porch	500 lm./sq. ft.
Indoors by a window	200 lm./sq. ft.

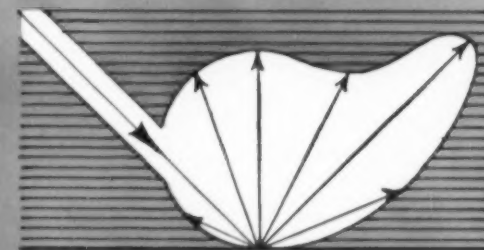
The above values are typical of a sunny midsummer day. In an average house the artificial illumination is less than 5 lm./sq. ft.



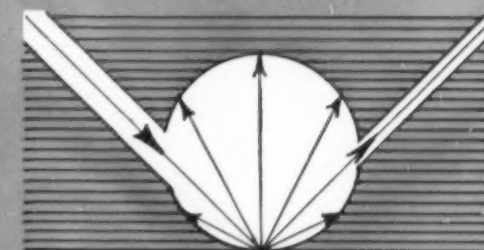
Specular Reflection from a smooth or polished surface: the angle of incidence of any light ray equals the angle of reflection.



Diffuse reflection from a uniformly matt surface: the brightness of the reflection does not change with change of viewpoint.



Spread reflection from a semi-glossy surface (egg-shell finish).



From porcelain or synthetic enamel surfaces, a mixture of diffuse and specular reflection is obtained. See footnote to Table 3.

Fig. 1 Types of reflection

L. 1

**TABLE 2** RECOMMENDED ILLUMINATION STANDARDS

SITUATION	ILLUMINATION
For work involving minute detail	200 lm./sq. ft.
very small detail	100 "
small detail	50 "
fairly small detail	20 "
Churches	General interior 5 "
Drawing Offices	General 10 "
	Drawing Boards 30 "
General Offices	15-20 "
Hospitals	Operating theatre 30 "
	Operating table 300 "
	Ward, general 3 "
	(plus extra bed lighting)
Libraries	Book racks 3 "
	Reading rooms 7 "
	Reading tables 15 "
Schools	Assembly hall, gymnasium 7 "
	Classrooms 15 "
	Artroom, sewing 20 "
Shop	General interior 5 "
	(plus display lighting)
Waiting, dining, writing rooms, enquiry offices	7 "

**TABLE 3** REFLECTION FACTORS

B.S. No.	White	75-80%
61	Light Stone	53%
62	Middle Stone	37%
58	Light Buff	60%
59	Middle Buff	43%
60	Deep Buff	34%
30	French Grey	45%
29	Quaker Grey	35%
31	Battleship Grey—light	44%
32	" " dark	26%
52	Pale Cream	73%
53	Deep Cream	70%
55	Lemon	70%
56	Golden Yellow	62%
57	Orange	36%
16	Eau-de-Nil	48%
17	Sea green	38%
19	Sage green	20%
1	Sky blue	47%
2	Turquoise	27%
3	Peacock blue	16%
10	Light brown	30%
11	Middle brown	20%
43	Salmon Pink	42%
38	Post Office Red	21%
40	Crimson	13%

The above table shows the percentage of incident light which is reflected from coloured matt surfaces, based on the British Standard colours for Ready Mixed Paints (B.S. 381). This percentage figure is known as the Reflection Factor of the surface.

White enamel, whether synthetic or porcelain, reflects from 60 to 80% of light in a mixture of specular and diffuse reflection. Suppose the figure for a particular example is 70%: at angles up to 45° from the perpendicular to the surface, about 10%, i.e., 7% of the incident light is reflected specularly, the remaining 63% being reflected diffusely. White plastic behaves in a similar manner to white enamel as far as reflection is concerned when the surface characteristics are the same.

### Glare

Glare is a rather vague term applied to those forms of discomfort caused by too much light entering the eyes, whether from the lamps themselves, reflections, over-bright surfaces, or excessive contrasts in relation to the object being looked at. "Glare light" is useless in itself, detracts from the value of the useful light, and provides continuous distraction. The principal causes are:

- Unshaded lamps, of any type.
- Excessive specular reflection from polished or glossy surfaces.
- Excessive differences in brightness between objects and adjacent surfaces (e.g., background and shadows) within the field of vision.
- An excessive amount of light entering the eye from sources (e.g., light fittings) other than the object which is being viewed, even though the latter may be adequately illuminated.

### Light Fittings in Relation to the Background

It is seldom that any one of these causes exists alone in a particular installation; in most cases glare is caused by varying combinations of several causes, hence the difficulty in dealing with them adequately in practice. In this connection it is important to remember that the light fittings themselves are part of the general background, and if seen against a dark wall or shadow will cause glare. In this case the glare is largely independent of the quantity of light involved, and the area of the source. Prevention is a matter of adjustment of the reflection factors of the surrounding surfaces, and in particular the selection of a suitable light fitting mounted at such a height that its brightness is not too high in relation to that of the background against which it is seen.

### Correction of Glare Defects may involve Redesign

The most difficult case to deal with is (d). Ability to see the work is reduced, involving discomfort, distraction and increased risk of accidents; serious strain is caused if such conditions are endured for any length of time or at frequent intervals. As the severity of the glare is dependent on the actual quantity of light involved, the first step is to raise the offending light source above the field of vision. The glare lessens as the height of the fitting above eye level is increased, until at more than 40° from the line of sight it may be disregarded.

When this treatment is carried out with an existing installation it will almost certainly be found that the resulting illumination is inadequate; in fact once a lighting system giving this kind of glare has been installed, little short of re-design and replacement will improve matters. Changing the size or type of lamp will make no difference.

Glare of types (a) and (b) are simpler to deal with; they can be avoided by choosing suitable light fittings and mounting them at the proper level in relation to the working plane. Reflected glare is often overlooked; it can even be caused by white paper on a desk with a dark matt surface, or by strong highlights on a typewriter. Avoidance of excessive contrast between the work and its immediate background (c) is essential, and the elimination of specular reflection by the use of matt finishes to all surfaces within the field of vision. If this is not possible, glare can be avoided by the careful placing of the light source relative to these surfaces and the worker.

For further details apply to

# L. 1 British Electrical Development Association

2 Savoy Hill, London, W.C.2. Temple Bar 9434



Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

## CONTRACT • NEWS •

### OPEN

#### BUILDING

**BIRMINGHAM C.C.** (a) Farmhouse at Makiel Farm, Dark Lane, Wythall. (b) J. A. Harrison, Canwell, Sutton Coldfield. (c) 2gns. (e) Nov. 30.

**BIRMINGHAM C.C.** (a) 4 houses, Folliott Road, Lea Hall Estate, as Contract 320; 12 3-storey flats, Greenway Street, Small Heath as Contract 467. (b) City Architect, Civic Centre, 1. (c) 2gns each contract. (e) Dec. 15.

**BLETCHLEY U.C.** (a) Factory and office block at the Industrial Estate, Watling Street. (b) Engineer and Surveyor, Council Offices. (c) 5gns. (e) Dec. 13.

**BRIDGNORTH R.C.** (a) Ancillary buildings to be attached to the Council Offices. (b) Clerk of the Council, Westgate. (d) Nov. 24.

**BRISTOL C.C.** (a) Supply, erection and fixing of structural steelwork, corrugated asbestos-cement sheeting, etc., in re-roofing of the tipping bay and furnace house at Destructor, Gasworks Road, Bristol 5. (b) City Engineer, 470 Bath Road, 4. (c) 2gns. (e) Nov. 30.

**CAMBRIDGE C.C.** (a) Secondary school and caretaker's house, Ventress Farm Estate. (b) City Surveyor, The Guildhall. (c) 5gns. (d) Nov. 30.

**CARDIFF C.C.** (a) 9 flats at the junction of Maindy Road and Cathays Terrace. (b) City Surveyor, City Hall. (c) 2gns. (e) Nov. 26.

**CHICHESTER C.C.** (a) Construction of retaining walls to houses at St. Paul's Road. (b) City Engineer, Greyfriars, North Street. (c) 2gns. (e) Nov. 26.

**COLCHESTER B.C.** (a) 3 blocks of 3-storey flats. (b) Borough Engineer, 1, West Stockwell Street. (c) 2gns. (e) Dec. 7.

**CORNWALL C.C.** (a) Erection of an area office as an extension to the Health Clinic, Moorland Road, St. Austell. (b) County Architect, County Hall, Truro. (c) 2gns. (d) Nov. 20. (e) Dec. 13.

**ELLESMERE PORT U.C.** (a) Contract No. 173, 16 lock-up brick garages at site No. 14, Stanney Estate. (b) Engineer and Surveyor, Queen Street. (c) 1gn. (e) Dec. 13.

**ELLESMERE PORT U.C.** (a) Contract No. 174, Erection of office accommodation at Wellington Road. (b) Engineer and Surveyor, Queen Street. (c) 3gns. (e) Dec. 13.

**FALMOUTH B.C.** (a) 26 dwellings, Dracena Avenue Estate. (b) Borough Surveyor, Municipal Buildings. (c) 3gns cheque. (e) Nov. 29.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

### FIBRE INSULATION BOARD

"QUITFIRE" impregnated is FIREPROOFED (Class 1 to B.S.476/32 Amdt No. 2) and FUNGUS-proofed or TERMITE-proofed (or all three combined.)

Used on Government contracts, Industrial Buildings, Schools, etc.

Enquire of your supplier or processors:

**S. O. Rudkin & Co. Ltd.**

Plantation House, Mincing Lane, LONDON, E.C.3

Tel: MANsion House 4406 (3 lines)

### KINNEAR SHUTTERS

### ORNAMENTAL GATES

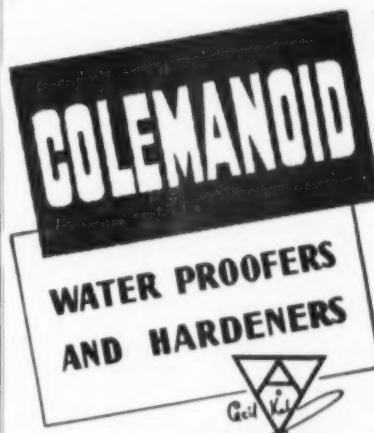


Artistic gates of sturdy construction in a wide variety of designs at very competitive prices.

Write for FREE illustrated leaflet.

**MOLESEY SHEET METAL WORKS**

(Dept. A.N.), 14, Grove Rd. (off Arnison Rd.), East Molesey, Surrey. MOL 1772.



**THE ADAMITE COMPANY LIMITED**  
MANFIELD HOUSE, STRAND, W.C.2

### MULLEN AND LUMSDEN LIMITED

Contractors and  
Joinery Specialists

41 EAGLE STREET, HOLBORN,  
LONDON, W.C.1.

Telephones: LONDON: CROYDON:  
CH 1267 7422/3/4 ADD 1264

### COBURN SLIDING DOOR GEAR



The first and best of  
tubular sliding door  
gears.

Our unexcelled ex-  
perience is at your  
disposal.

Originally intro-  
duced into this coun-  
try over 50 years  
ago, by:

**H. LUKE LTD.**

12/14 BRAZENNOSE STREET,  
MANCHESTER 2. Tel.: Blackfriars 5621.

\***GOOLE B.C.** (a) (Contract 23) 33 houses and 2 garages in Western Road and Charles Drive; (Contract 24) 26 houses and 4 bungalows in Charles Drive. (b) Borough Surveyor, Municipal Offices. (c) 2gns. (e) Dec. 3. See page 40.

**HORNCastle R.C.** (a) 1 pair of houses, construction of sewers, etc., Goulceby. (b) Messrs. Wm. Saunders and Partners, 24, Castle Close, Newark-on-Trent. (c) 3gns. (e) Dec. 3.

**KNUTSFORD U.C.** (a) (Contract No. 1) 24 flats; (Contract 2) 28 houses; (Contract 3) 19 houses and 25 houses; Shaw Heath. (b) Council's Surveyor, Council Offices. (c) 2gns. (e) Dec. 7.

**LONDON—ISLINGTON B.C.** (a) 76 dwellings in 2 8-storey blocks at Elizabeth Avenue, N.1. (b) Town Clerk, Islington Town Hall, Upper Street, N.1. (c) 3 gns. (d) Dec. 4. (e) Jan. 24.

**LONDON—WALTHAMSTOW B.C.** (a) Public convenience on a site at St. James Street, E.17. (b) Borough Architect, Town Hall, E.17. (c) 2gns. (e) Nov. 26.

**LUTON B.C.** (a) (1) Kitchen-dining hall at Maidenhall Road School; (2) 4 brick garages and extension of wooden garage at various school playing fields. (b) Borough Engineer, Town Hall. (c) 2gns. each contract. (e) (1) Dec. 4 and (2) Dec. 7.

**MACCLESFIELD B.C.** (a) 12 flats and 3 houses, Masons Lane, Hurdfield (Scheme 7G). (b) Borough Architect, 3, Jordangate. (c) 2gns. (e) Dec. 13.

**MALVERN U.C.** (a) 15 bungalows, with cupboard and nurse's flat, Worcester Road. (b) Council's Surveyor, The Council House. (c) 2gns. (e) Dec. 6.

**NEWCASTLE-UPON-TYNE C.C.** (a) 7 houses, Firfield Road, on Section E of Blakelaw Housing Estate. (b) City Architect, 18, Cloth Market, 1. (e) Dec. 2.

**NEW SARUM C.C.** (a) 34 houses, Primrose Estate, Salisbury. (b) City Engineer, The Council House, Bourne Hill, Salisbury. (c) 2gns. (e) Dec. 1.

**N. IRELAND — NORTHERN IRELAND HOSPITALS AUTHORITY.** (a) Erection of a hospital block, with alterations and additions to existing blocks, at Belfast City Hospital. (b) W. H. Stephens and Sons, 13, Donegall Square North, Belfast. (c) 5gns. (e) Dec. 8.

**NORWICH C.C.** (a) 8 dwellings and 10 3-storey flats and maisonettes, Tuckwood Estate. (b) City Architect, City Hall. (e) Nov. 29.

**PETWORTH R.C.** (a) 20 dwellings at the estate at Greatpin Croft, Fittleworth. (b) Messrs. Godman and Kay, Milnwood, 13, North Parade, Horsham, Sussex. (e) Dec. 7.

**PLOUGHLEY R.C.** (a) Erection of 3 pairs of houses, 2 pairs of bungalows, and construction of 1,000 yds. of concrete road, etc., Stoke Lyne. (b) Engineer and Surveyor, Waverley House, Bicester. Oxon. (c) £2. (e) Nov. 26.

## NEW!

HARLTON (PATENTED)

### TRADESMEN'S DELIVERY SAFE

- 4 self-locking compartments in revolving drum
- Frame of hatch mounted flush with external wall
- Burglar-proof Fly-proof Draught-proof
- External dimensions: 22" x 19"
- Weight 78lbs.
- Compact and attractive in appearance
- Negligible fitting costs

Write for descriptive leaflet to:—

**HARLTON MANUFACTURING CO.,  
SPHINX WORKS,  
CROWHURST ROAD, HOLLINGBURY,  
BRIGHTON, 6.**

Phone: Brighton 58351 (5 lines).



Specify

**CERRUX  
DECORATIVE PAINTS**

CELLON LTD., KINGSTON-ON-THAMES

### COURSES for all R.I.B.A. EXAMS

Postal tuition in History, Testimonies, Design, Calculations, Materials, Construction, Structures, Hygiene, Specifications, Professional Practice, etc. Also in general educational subjects.

**ELLIS SCHOOL OF ARCHITECTURE**  
Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.  
1636 OLD BROMPTON ROAD, LONDON, S.W.7  
Phone: KEN. 4477 and at Worcester

**THE ROOF  
OVER OUR HEADS  
IS  
YOUR PRESTIGE AND OURS**

When you specify our built-up roofing you specify a century of experience in the best products obtainable. Thus our prestige becomes your prestige and vice versa.

**ENGERT & ROLFE LTD**

LONDON E 14 (EAST 1441)  
and THE QUAY EXETER  
(EXETER 3595)



**SEVENOAKS R.C.** (a) (1) block of 2 houses; (2) 2 blocks of 2 houses; (3) block of 6 houses; Fordcombe Lane site, Fordcombe. (b) Engineer and Surveyor, "Inglewood," Oak Hill Road. (c) 2gns. (d) Dec. 3.

**SOUTHEND B.C.** (a) Construction of 2 new school buildings, cost £400,000, at Southend-on-Sea. (b) Borough Architect, Municipal Buildings; with particulars of similar works carried out and names of referees. (d) Nov. 23.

**SUNBURY-ON-THAMES U.C.** (a) 3 blocks of flats and maisonettes, Cadbury Close. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (d) Nov. 20. (e) Dec. 14.

**SUTTON-IN-ASHFIELD U.C.** (a) Improvements, external works and general repairs to 11 houses at Charles Street. (b) Messrs. Warner and Dean, Mansfield Road. (c) 2gns. (d) Nov. 23. (e) Dec. 13.

**THORNTON CLEVELAYS U.C.** (a) 50 houses, Halton Avenue Estate. (b) Engineer and Surveyor, Council Offices, Fleetwood Road, Thornton, near Blackpool. (c) 2gns. (e) Dec. 1.

**WARRINGTON B.C.** (a) Garages and workshops at Howley. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Dec. 2.

**WEST RIDING C.C.** (a) Erection of cowhouse and dairy at Low Green Farm, Gargrave, near Skipton. (b) County Land Agent, County Hall, Wakefield. (c) 2gns. (e) Dec. 6.

**WEST SUSSEX C.C.** (a) Erection of a primary school at Southgate, Crawley. (b) County Architect, County Hall, Chichester. (d) Dec. 3.

**WORCESTER C.C.** (a) 7 2-storey blocks of 4 flats for aged persons, Sharman Road. (b) City Engineer, 22, Bridge Street. (c) 3gns. (e) Dec. 3.

**WORSBOROUGH U.C.** (a) Block of 4 shops, with maisonettes above, etc., Elm House Estate. (b) Messrs. Taylor, Knight and Co., Brooksmoor House, Grove Road, Moorgate, Rotherham. (c) 2gns. (e) Nov. 29.

**WORTHING R.C.** (a) 12 houses for Rustington-Allangate Housing Development. (b) Council's Engineer and Surveyor, 15, Mill Road. (c) 1gn. (e) Dec. 2.

### PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, of modification of tenders, etc.

**BRISTOL.** (1) Bank and offices for Bristol Trustee Savings Bank. (3) Wm. Cowlin and Son, Stratton Street, Bristol, 2.

**MIDDLESBROUGH.** (1) T. A. Centre for Yorks T.A. and A.F. Association. (2) Bramble Farm. (3) Leslie and Co., Ltd., 80, Woodlands Road, Middlesbrough. (4) £80,000.

**DARTFORD B.C.** (1) 60 dwellings. (2) Temple Hill Estate. (3) Hawker-Smith, Ltd., 1, West Street, Erith, Kent.

## LIGHT STEELWORK (1925) LTD.

HYTHE ROAD,  
WILLESSEN, N.W.10  
Telephone: LADBROKE 3674

STEEL STAIRCASES  
BALUSTRADES AND  
HANDRAILS

## UNBREAKABLE PLASTER VENTILATORS, LOUVRES AND GRILLES

Full Particulars & Sample on request from  
**COZENS VENTILATORS LTD.**  
2, Kingswood Road, Penge, London, S.E.20  
SYDENHAM 8575



THE  
**ROOF GLASS CLEANING**  
COMPANY LIMITED  
Country-Wide Service  
122 MOUNT PLEASANT, WEMBLEY  
WEM 5287

## AIR BRICKS

for incorporation in Brickwork without breaking the bond.

Made in CONCRETE in a variety of sizes and colours.

Illustrated booklet on request.

**SUSSEX CEMENT & CONCRETE PRODUCTS,**  
Hillside, WASHINGTON, Sussex.

## London's Finest new & secondhand Value ARCHITECTS' PLAN CHESTS



378-380 BUSTON ROAD LONDON N.W.1 Phone: EUS 1332

## VARDALE FENCING Co. Ltd.

(DEPT. A)  
109, SHAKESPEARE ROAD, HERNE HILL, S.E.24  
Brixton 8282

ALL TYPES of FENCING and  
GATES supplied and erected

## VULCANITE

Roofing-  
FOR EVERY TYPE OF ROOF

**DURHAM C.C.** (1) Hostel. (2) Stanley. (3) G. S. W. Urban Development Co., Ltd., 38, The Side, Newcastle-on-Tyne. (4) £31,698.

**CARLISLE CORPORATION.** (1) Secondary school. (2) Harraby. (3) John Laing and Son, Ltd., Dalston Road, Carlisle. (4) £93,524.

**EALING B.C.** (1) Erection of slipper baths, etc. (2) South Ealing. (3) Bird and Cargill, Ltd., 37, Drayton Green Road, London, W.13. (4) £71,569.

**EIRE, DUNDALK.** (1) Erection of Louth County Hospital. (3) P. J. Wallace and Sons, Ltd., Aldborough Parade, Dublin. (4) £389,000.

**FLINTSHIRE C.C.** (1) Police headquarters. (2) Connah's Quay. (3) G. Eastwood and Sons, Ltd., Hawarden, Flintshire.

**HASLINGDEN, LANCs.** (1) Factory for Durie and Miller, Ltd., of Bacup, Lancs. (3) Ashworth and Hobson, Ltd., Rawtenstall, Lancs.

**HULL CORPORATION.** (1) 132 dwellings. (2) Longhill Estate. (3) A. E. Jenkinson, Ltd., 60, Anlaby Park Road, Hull. (4) £161,599. (1) 48 flats. (2) Longhill. (3) Scruton and Co. (Builders), Ltd., 78-80, Leonard Road, Hull. (4) £51,501.

**NOTTINGHAM CORPORATION.** (1) 204 houses. (2) Clifton Estate. (3) Thos. Bow, 45, Lamartine Street, Nottingham.

**NORTHWICH, CHES., U.D.C.** (1) 81 dwellings. (2) Leftwich Estate. (3) W. E. Jones, Lewin Street, Middlewich, Ches.

**SOUTHEND.** (1) Factory, for Neeta, Ltd. (2) Eastwood. (3) E. A. Pitcher and Co., Wood Lane, London, N.W.9. (4) £28,000.

**SOUTHAMPTON CORPORATION.** (1) Heath clinic. (2) Millbrook. (3) John Lewis Building Co., Ltd., 41, Portland Terrace, Southampton. (4) £23,442.

**HERTFORDSHIRE C.C.** (1) Fire and ambulance station. (2) Boreham Wood. (3) Clifford and Gough, 96, Eastcourt Road, Watford. (4) £25,100.

**WINDSOR B.C.** (1) 20 dwellings. (2) Newton Court, Old Windsor. (3) Wells (Old Windsor), Ltd., Cross Ways, Sunning Hill, Ascot. (4) £25,647.

**MANCHESTER.** (1) Rebuilding, for C. and A. Modes, Ltd. (2) Oldham Street. (3) J. Gerrard and Sons, Ltd., Swinton, Manchester.

**SHEFFIELD CORPORATION.** (1) Erection of King Egbert School. (3) George Longden and Sons, Ltd., St. Peter's Close, Sheffield. (1) Superstructure for College of Technology. (3) Corporation Public Works Department. (4) Cost £334,163.

**LEEDS CORPORATION.** (1) Erection of Temple Moor Grammar School. (3) Wm. Airey and Son (Leeds), Ltd., Eldon House, Leeds.

**"REFORM"**  
at the top  
ROOF GLAZING & SKYLIGHTS  
Steel or Aluminium  
**HAYWARDS LTD**  
UNION STREET, LONDON, S.E.1

Save Bricks by using  
TRUE FLUE  
STACK CONSTRUCTION  
TRUE FLUE LTD  
CONVECTOR HOUSE · ACACIA ROAD  
ST. JOHNS WOOD · LONDON · N.W.8

**ASPHALT  
WORK**  
TO ALL B.S.S.  
**COVERITE**  
(ASPHALTERS) LTD  
PALACE GATES STN. N.22 Buses Post 1707

**LIGHTNING CONDUCTORS**  
**J. W. GRAY & SON LTD.**  
13, CASTLE ST., SALISBURY  
Telephone: SALISBURY 2750  
**CHURCH SPIRE RESTORERS**

**ROYAL  
BOARD**  
Made in Sweden  
**THE OUTSTANDING  
ALL WOOD · FIBRE  
HARDBOARD**

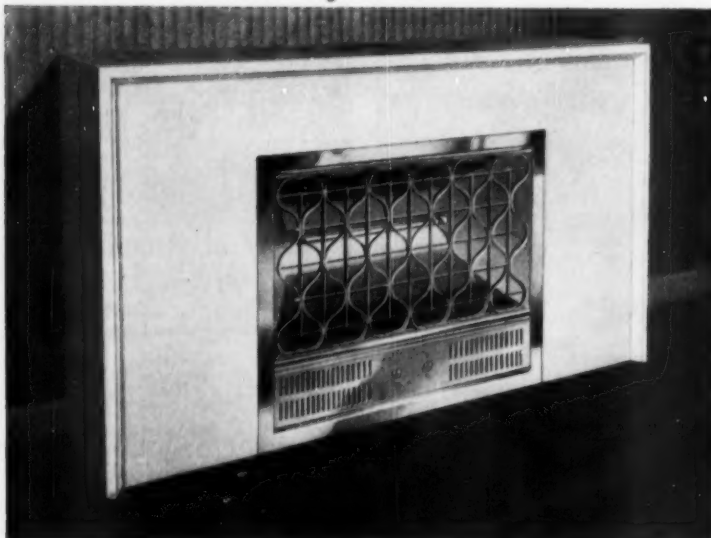
STEEL CONSTRUCTIONS FOR EVERY ENGINEERING REQUIREMENT  
**SHEET METAL  
WORK**  
KENT HOUSE LANE BICATTHAM KENT · PHONE SYDENHAM 4100  
**J. GARDNER & CO. LTD.**

**A. & P. STEVEN LTD**

**"APS"  
LIFTS**

181 ST. JAMES ROAD, GLASGOW, C.4  
Tel: Bell 0356  
LONDON: 10 Nicholson St., S.E.1. Tel. Waterloo 4465  
MANCHESTER: 1: 12 Charles St. Tel. Ardwick 1391  
EDINBURGH: 2: 2 North West Circus Place.  
Tel. Caledonian 2095  
BIRMINGHAM: 18: 63 Hockley Hill. Tel. Northern 1266





## FERRANTI electric fires in the radiant house

Ferranti Panel Fires are of particular interest to every Architect, Builder and prospective house owner by reason of the considerable saving in building costs and labour.

The simplicity of design, and their efficient operation makes these fires ideal heating units, which harmonize with modern developments in many varied forms of interior decoration.

A true parabolic reflector with a surface of exceptional brilliance, a pencil-slim, high temperature element, accurately positioned. These are features which result in electric heating with the greatest comfort and will only be found in FERRANTI RADIANT ELECTRIC FIRES.

Illustration Model P.3310 1250/2500 watts.

PRICE £33 9s 11d. (Tax Paid)

## Ferranti fires built-in panel fires for comfort

*First—foremost—hottest—Ferranti radiant electric fires*

FERRANTI LIMITED • MOSTON • MANCHESTER

SIZE OF OPENING				
WIDTH		HEIGHT		DEPTH
MAX.	MIN.	MAX.	MIN.	MIN.
25½	24½	21½	21½	12 ins.

Hundreds of miles of

## BLAKEY PATENT METAL ANGLE BEAD

Are used by many of the large City and Municipal Authorities every year with complete satisfaction.

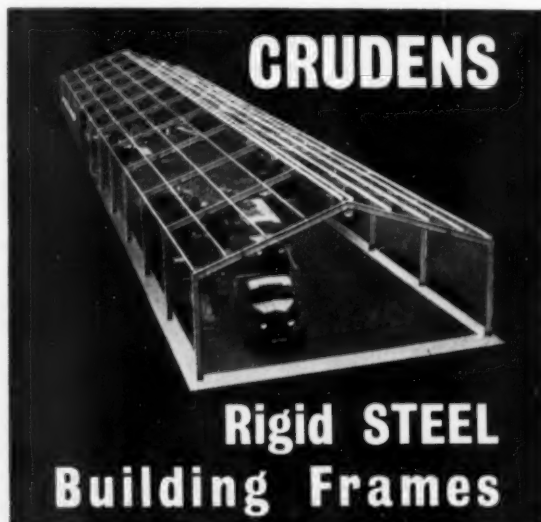
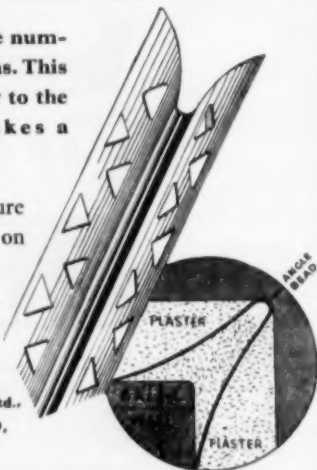
Saves money by low first cost and carries lasting credit after installation.

Now has twice the number of perforations. This gives a better key to the brick and makes a stronger corner.

Illustrated Brochure with full details on request.

PATENT NO.  
PRO. 10832/54

**BLAKEY**  
Cabinet & Metal Works, Ltd.,  
41, SCOTLAND ROAD,  
NELSON  
Tel.: 941



## FOR SPEEDY ERECTION AT LOW COST WITH MAXIMUM STORAGE SPACE

Supplied in a wide range of standard spans from 23' 4" to 60'. Y-units enable areas of any size to be roofed over in multiple spans, and wall-framing can be supplied for use with light forms of cladding.

All ancillary works undertaken if required in Scotland.

Free Illustrated Brochure on request

**CRUDENS LTD.**  
MUSSELBURGH - SCOTLAND

Phone: Musselburgh 2244-6

Grams: "Crudens, Musselburgh"





## All Glass Ceiling Fitting

with concealed plastic screw fitting suitable for conduit box fitting.



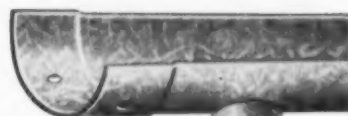
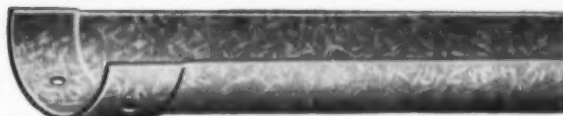
- NO RELEASE LEVER
- NO METAL
- MODERN FORM

CAT. NO DIA WATTAGE PRICE

28 9" 60/100 15/-

WRITE FOR LEAFLET ABN/158

**C. M. CHURCHOUSE**  
LIMITED  
CLARENDON CROSS  
LONDON, W.11  
TELEPHONE: PARK 5666 (3 lines)



**Strong,  
Durable,  
will not  
fracture**

'Harco' Rainwater Goods in light gauge pressed steel to B.S. 1091—1946 and hot dip galvanized after manufacture by the 'Harco' process, are easy to handle, long lasting and resist impact. The complete range includes H.R. and O.G. Gutters, Angles, Nozzles, Stop Ends and Brackets, Rainwater Pipes, Elbows, Shoes, Offsets and Heads.



**'HARCO'**  
LIGHT GAUGE PRESSED STEEL  
**RAINWATER  
GOODS**

Send for List No. A. 793.

G. A. HARVEY & CO. (LONDON) LTD.,  
WOOLWICH ROAD, LONDON, S.E.7

Telephone: GREENwich 3232 (22 lines)

**Harvey**

# Duresco Products

DURESCO PRODUCTS LTD., CHARLTON, LONDON, S.E.7  
Telephone: Giffenwich 0034

## Happy Landings...!

Some walls—like some people—invite rough treatment by virtue of their position. Some, likewise, get plastered and some do not...

We have in mind particularly those landing, stairway and passage walls in schools, cinemas, flat and office blocks—which can look like 'the ruins that Cromwell knocked about a bit' within weeks of opening day.

For such walls we have developed **TEXIDEC**, for producing attractive relief or textured finishes that will stand up to even the roughest juvenile traffic. And where plastering is eliminated and a finish is required for wood-float rendering, **TEXIDEC** practically specifies itself.



We will gladly send you samples of the many decorative effects which **TEXIDEC** can give—used alone or in combination with others of the wide Duresco range.

## PLANS BEGIN WITH ORDNANCE SURVEY

The first tools of the planner are the maps and large scale plans produced by the Ordnance Survey.

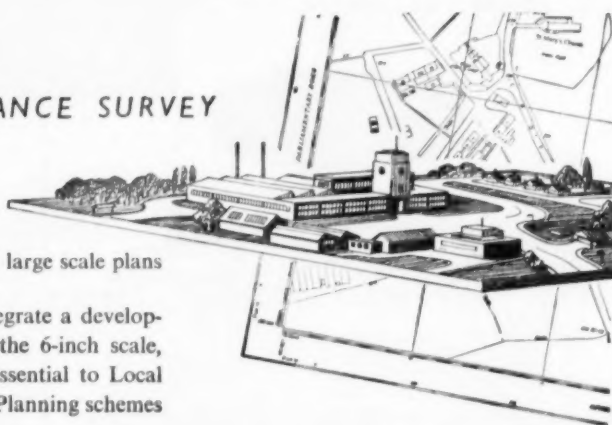
They contain all information necessary to integrate a development with its surroundings, and include, in the 6-inch scale, the statutory exhibited and deposited maps, essential to Local Government authorities, for illustrating Town Planning schemes and boundary alterations.



## ORDNANCE SURVEY MAPS HELP TO PLAN THE NEW BRITAIN

Obtainable from Ordnance Survey Agents and through most booksellers.

PUBLISHED BY THE ORDNANCE SURVEY, CHESINGTON, SURBITON, SURREY



1:1250 (about 50 inches to one mile) and 1:2500 (about 25 inches to one mile) National Grid Plans, made from new surveys are now available for many urban areas.

Other plans and maps available are 1:2500 (County Series), 6 inches, 2½ inches, 1 inch to the mile and smaller scales.

# THE MOST ATTRACTIVE FLOORING EVER PRODUCED!



Here's **POLYFLEX-POLYVINYL**, the sensational plastic floor that can be laid on ANY surface. Ready mixed for laying it has a beautiful marbled veining that forms as you spread it! An automatic choice for every Kitchen, Bathroom or Hall and ideal for living rooms, offices and restaurants for it is jointless and thoroughly hygienic. **GUARANTEED** not to crack, Lift or Craze, **POLYFLEX** is impervious to grease and oils.

THE ORIGINAL



IS GUARANTEED!

Available in a range of glorious colours and marbled veinings.

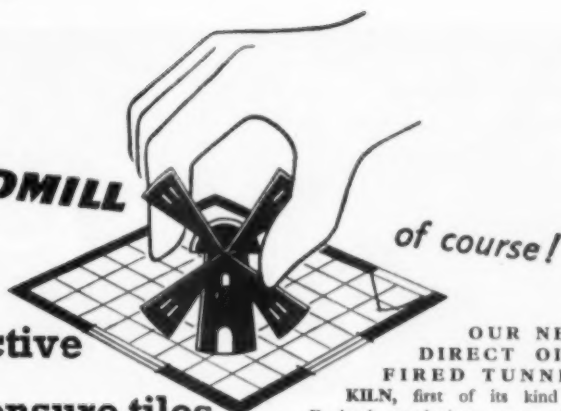
**SEND FOR BROCHURE**

**POLYFLEX FLOORING ON 48 High Street, Finsbury, LONDON.**



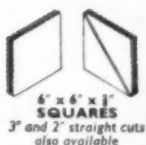
**NEXT MOVE?**

Specify **WINDMILL**



**Modern & highly effective  
production methods ensure tiles  
of uniform colour each as hard &**

**durable as the next—at  
KEEN COMPETITIVE PRICES**



6' x 6' x 1'  
**SQUARES**  
3' and 2' straight cuts  
also available



6' x 6' x 1'  
**BULL NOSE**  
1' RAD.  
for skirtings and sills

**WINDMILL**  **red quarry tiles**  
**LAST TEN YEARS LONGER**

Send your enquiries, or ask for our representative to call, to

**THE ALLIED BRICK & TILE WORKS LTD.**

6-7 QUEEN STREET, LONDON, E.C.4. Tel: CITY 2725

Works at: HAPTON-ON-THE HILL,  
HARROGATE & RAMSDALE

**OUR NEW  
DIRECT OIL-  
FIRED TUNNEL  
KILN**, first of its kind in  
England, producing quarry tiles,  
ensures improved output with continuance  
of the superior quality, rich dark red colour  
and durability of **WINDMILL TILES**.  
**WINDMILL** tiles, made in the usual  
standard sizes, are specially suitable for  
flooring Hospitals, Schools, Kitchens,  
Sculleries, Canteens, Dairies, etc.  
**ALSO AVAILABLE** — **WINDMILL**  
superfine floor tiles and fittings.  
**SAMPLES** sent on request.



*Manufactured and Erected by*

**PENFOLD**

Once again another important fencing project is entrusted to Penfold — this time at Anglo-Iranian's Kent Oil Refinery nearing completion on the Isle of Grain.

The 7ft. high Fencing, Reinforced Concrete Posts, Angle Iron Bent Heads and Fittings were all made at our Watford Factory and erected by teams of our specialist erectors.

**FENCING AND ENGINEERING LTD.**

IMPERIAL WORKS · BALMORAL ROAD · WATFORD · HERTS.

Telephone: Watford 2241.

Telegrams: "Penfold, Watford."

SAMUEL ELLIOTT & SONS  
(READING) LTD.

TELEPHONE  
READING  
71536 (3 LINES)

*Elliotts of Reading*  
Craftsmen in Wood and Metal



## STANLEY

### U500 DUMPY LEVEL

Specially designed to meet the demands of Surveyors, Engineers and Builders engaged on reconstruction work. A light robust level with a high standard of quality and accuracy at a reasonable cost.

The "Stanley" range contains everything for Surveyor and Draughtsman.

LITERATURE (A.B.N.54) UPON REQUEST.

### W. F. STANLEY & CO., LIMITED NEW ELTHAM, LONDON, S.E.9

Phone: Eltham 3836

Grams: "Turnstile, Souphone", London

Showrooms:—

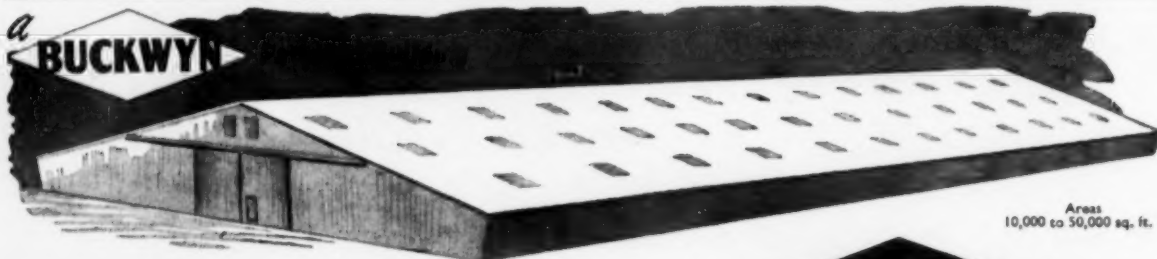
79-80 High Holborn, London, W.C.1

(Phone: Holborn 2684)

Branches:—

13 Railway Approach,  
London Bridge, London, S.E.1

52 Bothwell Street,  
Glasgow C.2



Areas  
10,000 to 50,000 sq. ft.

### The World's most economical warehouse

As adopted by the Admiralty, the Ministry of Works, the Ministry of Supply and Foreign Governments.

Frame construction in tubular steel and high tensile cable, Buckwyn metal tiled in aluminium or steel with or without insulation for all climatic conditions.

Complete buildings from 7½ sq. ft. delivered on site or F.O.B. or 9½ sq. ft. erected.

BUCKWYN CONSTRUCTIONS LTD (Dept. 17) TWYFORD, BERKS, ENGLAND

*In the race  
for economy  
BUCKWYN  
wins!*

Tel.: Wargrave 319





**Hi-Craft**

# Fluorescent Lighting

Branches:  
Manchester, Birmingham,  
Leeds and Bristol.

HEAD SALES OFFICE:

**SMART & BROWN** ENGINEERS LIMITED

Export Office:  
105 Judd Street,  
London, W.C.1.

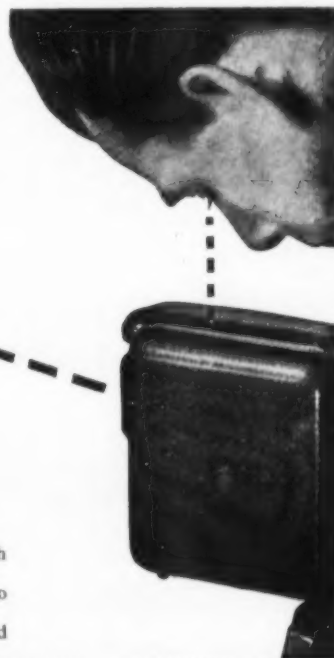
8 Rose & Crown Yard, King St., St. James's, London, S.W.1.

Telephone: Whitehall 8267.

2F14



**Quick, Accurate,  
Foolproof!**



The

# COWLEY Automatic LEVEL

gives you accurate levelling in a matter of seconds over distances from 6' to 150', with an accuracy of  $\frac{1}{4}$ " at 100'. Simple, robust and compact, the Cowley Level will go anywhere, needs no setting-up or skilled operation, and will take any amount of hard usage. Ask your supplier for a demonstration or complete the attached coupon.

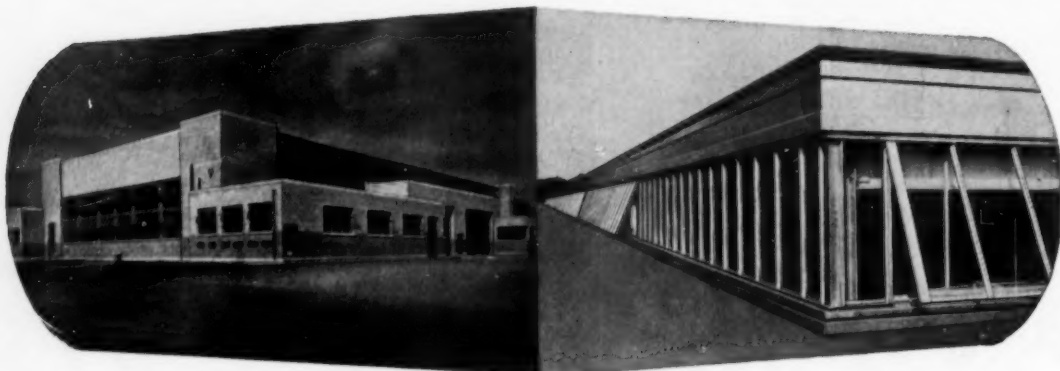
**£16**

complete with  
tripod, staff  
and target

COWLEY LEVEL DEPT.  
HILGER & WATTS LTD.  
48 Addington Sq., London, S.E.5.

Please forward literature ☐ Arrange a demonstration at no obligation to myself ☐  
Send me address of nearest stockist ☐  
Please mark appropriate square and send to:  
COWLEY LEVEL DEPT., HILGER & WATTS LTD., 48 Addington Sq., London, S.E.5  
NAME .....  
ADDRESS ..... A.B.M.

*The more windows the greater the value of—*



*Camberwell Bus Garage. Architect: C. Howard Crane & Partners, in association with Thomas Billow, F.R.I.B.A., L.T.E. Architect. Contractors: Halse & Sons, Ltd. Window Installations by Williams & Williams, Ltd.*

*Minnesota Mining & Manufacturing Co., Ltd., Factory Roof Lighting. Architect: Henry Bugden & Co., F.R.I.B.A. Main Contractor: G. Percy Trentham Ltd. Window Installations by Williams & Williams, Ltd.*

Teleflex remote control gearing offers a simple, inexpensive and efficient method of solving your problems of Window and Ventilator operation—nothing is “out of reach”. Our new catalogue is now available and we will be pleased to forward a copy upon request.

## TELEFLEX REMOTE CONTROL

TELEFLEX PRODUCTS LTD · CHADWELL HEATH · ESSEX Telephone: SEVEN KINGS 5771 (7 lines)

**always ask for**

**HARDBOARD  
AND  
INSULATION BOARD**

MADE IN SWEDEN  
STOCKED BY MERCHANTS EVERYWHERE

SOLE CONCESSIONAIRES IN THE UNITED KINGDOM  
**GLIKSTEN BUILDING MATERIALS**  
CARPENTERS ROAD, LONDON, E.15. TEL. AMHERST 4444 & 5588  
LIVERPOOL OFFICE: 87, LORD STREET TEL. CENTRAL 3441

Your  
**EARTH  
BORING**  
**PROBLEMS**  
*instantly  
solved*

by the largest hire fleet of this specialised equipment in the Country. Depths to 20 feet, bores to 42 inch diameter holes. Nationwide coverage.

**SHORT BORED PILE FOUNDATIONS  
DEEP PILE FOUNDATIONS  
TOWER FOOTINGS  
TRANSMISSION POLE ERECTION**

Daily, weekly or monthly terms as well as keen quotations for special contracts gladly submitted.

**NORMID LTD.**

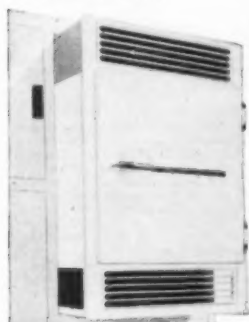
**NEW ROAD · ASCOT · BERKS.**  
Telephone: WINKFIELD ROW 3240

**More and more people are asking . . .**



As more and more houses go up, buyers are becoming more choosy—and quite rightly so. Today a kitchen without a refrigerator is like a bathroom without a bath.

Nothing pleases the house-hunting house-wife more than to see on the refrigerator-door the name **Electrolux** . . . renowned for reliability and trouble-free, silent service.



Installation made easy. This Model M.151 is halfway in position. Seconds later it will be in final position—"built-in" with no trace to tell the tale.

Electrolux 'built-in' Refrigerators are now readily available for all new housing—Private and Local Authority—for kitchen modernisations and conversions.

Electrolux excels in easy installation . . . with all these added advantages: No machinery—no moving parts to wear out. No vibration. No interference with Radio or T.V. Permanent Silence. Operation by Electricity or Gas. 5-Year-Guarantee on the Silent Cooling Unit.

**BUILT IN**

**Electrolux**



By Appointment  
Refrigerator Makers  
to the late King George VI

*Silent*



By Appointment  
Refrigerator Manufacturers  
to the late Queen Mary

**REFRIGERATORS**

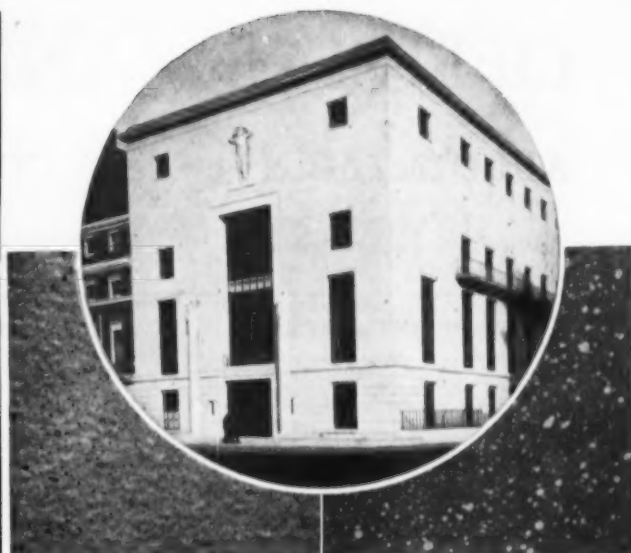
To: Electrolux Ltd, Contracts Dept., 153/5 Regent St., W.1

Please send me full particulars of M.151 "built-in" Refrigerators.

NAME

A.B.11

ADDRESS



The R.I.B.A. Building  
with specimens of  
Glazement finish.  
Architect: G. Grey Worlton,  
F.R.I.B.A.

## How good can a wall finish be?

Good enough to satisfy the high standards demanded by the R.I.B.A. In other words of the best. That is why **GLAZEMENT** was used for interior decoration in the R.I.B.A. building, which is as good to-day as it was twenty years ago. **GLAZEMENT** looks well, wears well and is economical. It presents an unbroken continuous surface easily washed down and can be applied in almost any colour in smooth, stippled or mottled finish. As to cost—at a rough calculation to treat an average wall with **GLAZEMENT** from the brickwork, including rendering, it is approximately half the price of tiling or glazed brickwork. Write for the **GLAZEMENT** illustrated brochure and learn more about the best wall surface treatment available to-day.

**GLAZEMENT**

CEMENT GLAZE WALL FINISHES

ROBB'S CEMENT ENAMEL FINISHES LTD.

245 VAUXHALL BRIDGE ROAD, LONDON, S.W.1.

Telephone: TATe Gallery 0091/2. Telegrams: Glazement Souwest London.

WE HAVE AN EXHIBIT AT  
THE B.B.C. CENTRE



26 STORE STREET W.C.1

**SEE OUR  
EXHIBIT**

SCOTLAND:

W. C. Simpson & Son Ltd.,  
30-42 Haymarket, Surrey Place,  
Edinburgh. Edinburgh 62006.

NORTHERN IRELAND:

Concrete Industries Ltd.,  
107a Shore Road, Belfast.  
Belfast 76681.



# OFFICIAL ANNOUNCEMENTS

## APPOINTMENTS • CONTRACTS • TENDERS

Rate 1/6 per line, minimum 3/-

Close for press 1st post Monday for following Thursday Issue

### APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order, 1952.

#### TARVIN RURAL DISTRICT COUNCIL.

##### ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the above appointment.

Applicants must have had sound training by pupilage and had previous experience in design and construction of building works, particularly in relation to housing.

The salary will be in accordance with Present Grade III of the A.P.T. Division of the National Joint Council, viz.: commencing at £550 per annum. A car will be an advantage for which a travelling allowance in accordance with the Whitley Council Scale for a 8 h.p. car will be made. A house will be made available if required.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, should be addressed to Mr. Thomas Pritchard, M.I. Mun.E., and enclosed in an envelope endorsed "Architectural Assistant," and should reach this office not later than November 26, 1954.

(Signed) J. H. MOORE DUTTON,  
Clerk to the Council.

Westminster Buildings,  
Newgate Street,  
CHESTER.  
November 3, 1954.

[8505]

#### URBAN DISTRICT COUNCIL OF CORBY.

##### ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the undermentioned appointments in the department of the Engineer and Surveyor.

(1) SENIOR ARCHITECTURAL ASSISTANT. Salary in accordance with new Grade A.P.T. IV (£675-£825), commencing at £675 per annum.

Applicants must be Registered Architects and should have considerable experience in design, construction and contract administration.

(2) SENIOR QUANTITY SURVEYOR. Salary in accordance with new Grade A.P.T. IV (£675-£825), commencing at £675 per annum. Applicants must have passed final R.I.C.S. (Quantities Section) and be thoroughly experienced in the preparation of Bills of Quantities, adjustment of variations and settlement of final accounts. Previous experience of substantial contracts for local authority housing is desirable.

(3) JUNIOR ASSISTANT QUANTITY SURVEYOR. Salary in accordance with Miscellaneous Division III (£395-£460), commencing at £395 per annum.

Applicants must be 22 years of age, or over, and have completed their National Service. The post offers scope and facilities for the successful candidate to qualify as a Chartered Surveyor. Previous suitable experience associated with works of building erection is essential.

The provisions of the Local Government Superannuation Acts, 1937-1953, will apply in respect of each appointment. Housing accommodation will be made available to successful candidates, if married.

Forms of application may be obtained from the undersigned, and requests therefore should indicate the position for which application is being made. Completed forms must be received not later than 8 a.m. on Saturday, the 11th December, 1954.

G. B. BLACKALL,  
Clerk of the Council.

Council Offices,  
CORBY, Northants.  
November 12th, 1954.

[8527]

### APPOINTMENTS—contd.

#### COUNTY BOROUGH OF BURY.

APPLICATIONS are invited from suitably qualified persons for the position of SENIOR QUANTITY SURVEYOR in the Borough Engineer's Department. Salary Grade A.P.T. VI (£695-£760).

The appointment is superannuable, and subject to medical examination.

Applications stating age, details of training, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, must reach me not later than 30th November, 1954.

EDWARD S. SMITH,

Town Hall,  
Bury.

Town Clerk.  
[8524]

ARCHITECTURAL ASSISTANTS required by the GOVERNMENT OF KENYA P.W.D. for one tour of 40/48 months in the first instance. Salary scale (including present temporary allowance of 35 per cent of salary) £904 rising to £1,134 a year. Commencing salary according to war service and experience. Gratuity of 13 per cent of total basic salary drawn during contract. Outfit allowance £30. Liberal leave on full salary. Free passages. Candidates over 24 years of age must be capable of working up sketch designs and preparing full working drawings for various types of Government buildings. They must have had at least four years' actual experience in an Architect's office and have a sound knowledge of building construction. Write to the Crown Agents, 4, Millbank, London, S.W.1. State age, name in block letters, full qualifications and experience and quote M2B/40529/AF. [8532]

#### MINISTRY OF WORKS.

LEADING ARCHITECTURAL ASSISTANTS required for drawing offices in the Chief Architect's Division in London, Edinburgh and various provincial offices.

Candidates must have had at least three years' architectural training, good experience in an architect's office, and be of Intermediate R.I.B.A. standard. London salary £710 to £834 per annum. Rates elsewhere slightly less. Starting pay according to experience. Prospects of promotion and establishment.

State age, full details of training and experience and office desired, to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/C.A.10(G), Abell House, John Islip Street, London, S.W.1. [8525]

#### LONDON COUNTY COUNCIL.

##### ARCHITECT'S DEPARTMENT.

VACANCIES for ARCHITECTS, Grade III (up to £892 10s), and ARCHITECTURAL ASSISTANTS (up to £739 10s) in Schools and Housing Divisions.

Particulars and application forms from Architect (AR/EK/A/3), County Hall, S.E.1. (1058.) [0146]

#### HAMPSHIRE

APPLICATIONS are invited for the appointment of ASSISTANT LAND SURVEYOR, Grade I-II (£490-£565) in the County Architect's Department. Candidates should be suitably qualified, should have had good experience in the survey of building sites, including the use of levelling instruments, and be capable of plotting surveys and preparing drawings.

The appointment is pensionable and will be subject to satisfactory medical report. In approved cases the County Council is prepared to assist newly appointed staff to meet removal and other expenses.

Applications should be made on forms obtainable from the County Architect, The Castle, Winchester, to whom they should be returned by 27th November. [8518]

### APPOINTMENTS—contd.

#### CITY AND COUNTY OF NEWCASTLE UPON TYNE.

##### CITY ARCHITECT'S DEPARTMENT.

##### PROPOSED NEW TOWN HALL.

##### APPOINTMENT OF ARCHITECTURAL STAFF.

APPLICATIONS are invited from Associate Members of the R.I.B.A. for the undermentioned special appointments in the City Architect's Department. These appointments are additional to the present Establishment of the Department, and the successful candidates will be engaged solely upon duties in connection with the New Town Hall Scheme, the estimated total cost of which is in the region of £2 million. The present position is that the Minister of Housing and Local Government has approved in principle the building of Stage I of the Scheme, which is estimated to cost some £600,000. It is hoped to commence building work early in 1956.

(A) PRINCIPAL ASSISTANT ARCHITECT, A.P.T. Division, Grade X (£920-£1,050), as from 1st January, 1955, amended A.P.T. VII (£980-£1,100).

(B) SENIOR ASSISTANT ARCHITECT, A.P.T. Division, Grade VIII (£785-£860), as from 1st January, 1955, amended A.P.T. V (£840-£900).

(C) ASSISTANT ARCHITECT, A.P.T. Division, Grade VI (£695-£760), as from 1st January, 1955, amended A.P.T. IV (£705-£825).

Candidates for each of the above appointments must have received a sound architectural training, preferably at a recognized School of Architecture, and experience in Architectural work of exceptional quality will be an advantage.

Applicants for appointment (A) should have wide experience, and should be capable of taking responsibility for the day-to-day administration of a large building contract of this nature.

The appointments are intended to be for the duration of the Scheme, subject to satisfactory service, and will be subject to the National Conditions of Service as adopted by the City Council; to the provisions of the Local Government Superannuation Act, 1953, and to one month's notice on either side. The successful candidates will be required to pass a medical examination.

Applications, stating age, particulars of training, qualifications, experience, present and past appointments attaching thereto, together with copies of two recent testimonials, or the names and addresses of two persons to whom reference may be made, should be addressed to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, not later than Thursday, 2nd December, 1954.

JOHN ATKINSON,  
Town Clerk.

Town Hall,  
NEWCASTLE UPON TYNE, 1. [8521]

#### GOVERNMENT OF ADEN.

##### ARCHITECT, PUBLIC WORKS DEPARTMENT.

DUTIES include the design and construction of public buildings including housing under the direction of the Chief Architect, Public Works Department.

Appointment is on contract for one tour of 18-24 months in the first instance with possibility of extension in the salary scale £1,032-£1,788 per annum; plus a gratuity of £100-£150 per annum on satisfactory completion of contract. Starting salary in the scale will depend upon professional experience after attaining A.R.I.B.A.

First class return passages for officer, wife and four children below the age of 18, provided. Seven days' leave for each completed month of service. Furnished quarters provided at a low rental.

Candidates must be A.R.I.B.A.

Apply in writing to the Director of Recruitment (Colonial Office), stating briefly age, qualifications and experience, and quoting reference number BCD 112/2/03. [8511]



## APPOINTMENTS—contd.

## GOVERNMENT OF KENYA.

ARCHITECT FOR PUBLIC WORKS  
DEPARTMENT, KENYA.

**REQUIRED** to prepare sketch designs and working drawings for Government buildings including Schools, Police Stations, Government Offices, Housing, Hospitals, Prisons, Agricultural Buildings, etc. To be in charge of a section dealing with one or more of such group of buildings.

Appointment will be on contract for four years in the salary range £655-£1,320 per annum plus of entry determined by war service and approved experience. Gratuity at the rate of 13½ per cent of total substantive salary drawn, payable on termination of contract. Cost of living allowance of 35 per cent of salary subject to maximum of £350 per annum.

Free passages on appointment and on leave for officer, his wife and children up to a maximum cost of three adult passages. Leave at rate of 45 days for each month of resident service. Successful candidate to proceed to Kenya by air.

Candidates not to exceed 40 years of age must be A.R.I.B.A., with at least six years' post qualification experience in an Architect's office. Administrative and practical supervisory experience will be an advantage.

Apply in writing to the Director of Recruitment, Colonial Office, Sanctuary Buildings, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience. Mention the reference No. BCD 112/7/011. [8512]

## LONDON ELECTRICITY BOARD.

## JUNIOR QUANTITY SURVEYOR.

**APPLICATIONS** are invited for the above position in the Chief Engineer's Department in Central London.

Applicants should have had experience in working-up in all trades, and the successful candidate will work under the direction of a Chartered Quantity Surveyor.

The post is graded under Schedule "C" of the National Joint Board agreement as Grade 9—£415 per annum rising to £600 12s per annum, inclusive of London Allowance.

Application forms obtainable from Personnel Officer, 46, New Broad St., E.C.2, to be returned completed by 30th November, 1954. Please enclose addressed envelope and quote ref.: V/1845/AA on envelope and all correspondence. [8514]

## LONDON COUNTY COUNCIL.

HAMMERSMITH SCHOOL OF BUILDING  
AND ARTS AND CRAFTS.

**(1) TEACHER ASST.** Grade B, of Painting and Decorating in C. & G. courses and to assist in the Interior Design course for National Diploma in Design; should hold at least a first class C. & G. Final Cert. and have industrial experience.

**(2) TWO TEACHERS' ASST.** Grade B and Asst Grade A, for Building Science and Maths. or for these subjects separately, in Diploma and Certificate courses, C. & G. trade courses and in classes for Structural Engineers, Architects and Surveyors.

Teaching experience is desirable for all posts, but not essential. Burnham F.E. salary scales; (1) and (2B) from £561—£25—£1,012 (men), £511—£20—£820 (women), and (2A) from £486—£18—£917 (men), £441—£15—£745 (women); commencing and maximum salary according to age, qualifications and experience. Application forms from the School, Lime Grove, Shepherds Bush, W.12, for return by 2nd December. (1449.) [8510]

## CONTRACTS

## BOROUGH OF GOOLE.

ERECTION OF 63 HOUSES AND  
BUNGALOWS AND 2 GARAGES.

**TENDERS** are invited for the erection, including painting and electrical work, of—

(a) 33 Houses and 2 Garages in Western Road and Charles Drive (Contract 23).

(b) 26 Houses and 4 Bungalows in Charles Drive (Contract 24).

Drawings may be inspected at the office of Thos. Waterfall, M.I.Mun.E., Borough Surveyor, Municipal Offices, Goole, from whom forms of tender, Specification and other documents may be obtained on payment of Two Guineas, returnable on receipt of a bona fide Tender and the return of all documents issued.

Tenders endorsed "Contract 23 or 24" as the case may be, to reach me by Friday, 3rd December, 1954. K. H. CHORLTON,

Municipal Offices, Town Clerk.  
GOOLE.  
9th November, 1954. [8517]

## MISCELLANEOUS SECTION

**RATE**: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.

**BOX NOS.** add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o, "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

**PRESS DAY Monday.** Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

## ARCHITECTURAL APPOINTMENTS VACANT

**ASSISTANT** about R.I.B.A. Intermediate standard with office experience, write giving details and salary required.—Box 0090. [8513]

**ARCHITECTURAL Assistant** urgently required for busy, varied and progressive country practice.—Write giving details, age, experience and salary required.—Geoffrey Barzley & Barbary, 15-16, Alverton, Penzance, Cornwall. [8472]

**WEST END** firm of architects require experienced assistant architect, primarily for site supervision, good working drawings and appreciation of contemporary architecture essential; salary £800-£900, five-day week.—Box 8772. [8474]

**BROWN MOULIN & ANTRUM**, 14, Queen Anne's Gate, S.W.1, invite applications from experienced assistants interested in working on large hospital project and able to take charge. Salary by arrangement. [8522]

**ARCHITECTURAL** Draughtsmen required by Major Building and Civil Engineering Contractors for their London Headquarters. Applications are invited from young Architects aged 22-26, with Intermediate or Final R.I.B.A. Commencing salary £550-£600 p.a.—Write, giving full details, to Box 0086. [8519]

**ARCHITECTURAL Assistant** required by the John Lewis Partnership for layout and store-fitting details on large rebuilding programme in W.1 area. Previous experience of shop-fitting helpful but not essential. Minimum salary £400 per annum.—Write, giving full details, to Director of Personnel, 32, Cavendish Sq., London, W.1. [8520]

**WANTED**, Architectural Assistants, qualified and inter-standard. Contemporary work in Factories, Hospitals, Churches, Schools, etc. Experience in Middle East helpful. For posts in Huddersfield or Shrewsbury Offices.—Apply Abbey & Hanson, 11, Cloth Hall Street, Huddersfield. Tel. No. Hudds. 225. [8516]

**ALBRIGHT & WILSON**, Ltd. require an Architectural Draughtsman with knowledge of modern building construction for the preparation of working and detail drawings in connection with industrial buildings. Applicants should be capable of making surveys and setting out. Experience in the preparation of B. & C.E. bills of quantities would be an advantage.—Apply in writing to the Personnel Department. [8523]

**ARCHITECTURAL** assistant of some years good office experience and accustomed to site control and responsibility required for Manchester office, R.I.B.A. qualification desirable, interesting post with wide range of work for man of initiative and capacity.—Please give details of education, experience and salary required to Harry S. Fairhurst & Son, Chancery Chambers, 55, Brown St., Manchester, 2. [8531]

**£500** to £700 p.a. salary offered for assistant to take part in large-scale development and remodelling of petrol filling stations, service station, garages, workshops, etc. Must be capable of working independently. Should be of intermediate standard. Work will involve original design, site visits and a high standard of presentation. Five-day week, good pension and life assurance scheme sickness benefits and free luncheon vouchers. Please write, giving full personal particulars, qualifications and experience, to Box 8816, quoting Ref. HPA 361. [0148]

**ARCHITECTURAL Draughtsman.** Applications are invited by a Leeds Company with a substantial business in prefabricated housing and schools for home and overseas markets. Accurate and neat draughtsmanship will be required of applicants, who should be preferably of Intermediate standard. The work is interesting, varied, and demands imagination, initiative and a contemporary approach to building problems. A man with these qualities, who is prepared to devote some effort to learning the technique of prefabrication, will find ample and progressive scope for their deployment. A pension scheme is in operation.—Reply, stating age, experience and present salary to Messrs. Cawood Wharton & Co., Ltd., 1a, Cavendish Road, Leeds, 1. [8497]

## SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order, 1952.

**FREE-LANCE** draughtsman wanted for structural engineering detailing in Central London during normal office hours.—Box 8960. [8507]

**SENIOR Assistant** required in busy practice in West End. Age about 30 years, qualified, with several years' experience and capable of running contracts.

**JUNIOR Assistant** also required. In early twenties, Intermediate R.I.B.A. with at least two years' experience.—Box 0124. [8530]

**TECHNICAL Estimator** for Refractory and Specialized Construction Company, S.E. London. Some experience in drawing. Excellent prospects. Good salary commensurate with ability.—Box 1149, c/o Whites, Ltd., 72/8, Fleet Street, E.C.4. [8500]

**SHOPFITTING DRAUGHTSMAN-DESIGNER** to take charge of design and drawing office of Messrs. Brooks Robinson, in Melbourne, Australia (Mr. Hudson), a well-established firm specialising in modern shopfitting, architectural metal work, decorative glass, etc.; applicant should be a qualified draughtsman and capable of varied design work of high quality; experience with a first-class firm of shopfitters in Britain an advantage; salary offered to suitable applicant about £A1,000 p.a.; contract could be discussed; assisted passage.—Write in first instance with full details to O. W. Roskill, Industrial Consultants, 14, Great College Street, London, S.W.1. [8528]

## WORK REQUIRED

**PART-TIME** work required by experienced Architectural Assistant in London area. Surveys, working drawings, details and perspective work. Sats. and evenings.—Reply Box 0107. [8533]

## FOR SALE

**ALL** hardwood mouldings, plain and embossed, embossed ornaments and dowels; send for catalogue and to-day's lowest trade prices.—Dareve's Moulding Mills, Ltd., 60, Pownall Road, Dalston, E.8. Clissold 1543/4. [0142]

## PLANT FOR HIRE

**CHASESIDE** mechanical shovels, Major type, by day, week or contract, with drivers; tipping lorries supplied if required with shovels.—Henry Froud, Ltd., Primrose Wharf, Tunnel Ave., Greenwich, S.E.10. Tel. Greenwich 0072-3. [0138]

## NISSEN HUTS, ETC.

**FOR** immediate sale.

**3½** tons 1½in M.S. rod, £24 per ton.

**SECONDHAND** 36ft x 16ft Nissen hut, £55.

**DITTO**, with lining, £65.

**SECONDHAND** 60ft x 16ft Nissen hut, £110.

**SECONDHAND** 78ft x 24ft Nissen hut, £165.

**SECONDHAND** 60ft x 20ft timber building, £297.

**SPRING & SMITH, Ltd.,**

3, Canterbury Road, Kilburn, N.W.6. Maida Vale 2285. [8534]

**EX-Army** Nissen and other buildings available; also, manufactured buildings.—Universal Supplies (Belvedere), Ltd., Crabtree Manorway, Belvedere, Kent. Erith 2948. [0145]

## ACCOMMODATION

**FOR** comfort and service for that odd night in London try Beaufort Hotel, 12, Beaufort Gardens, Knightsbridge, S.W.3. (Kensington 9588) Near Harrods, 21/- b. & b. [8526]

**BOURNEMOUTH** Offices. Two front light rooms with private lobby to let, principal business street, very suitable Architect or Surveyor, reasonable rent.—Apply Tattersall & Sturt, 108, Old Christchurch Road, Bournemouth. [8515]

See what  
can be  
done...

...learn  
how it's  
done!

## PHOTOGRAMS 1955

*The Annual Review of the World's Photographic Art*

PHOTOGRAMS OF THE YEAR 1955 is the finest review of pictorial art obtainable, and makes an ideal gift. In this new edition the pages have been increased in size and number, with many extra plates, some in full colour. The reproductions, in high-quality photogravure, are selected from the world's leading salons. A critical plate-by-plate commentary and articles on the year's work, colour photography, etc., will be of outstanding interest to all photographic enthusiasts.

**Ready Now.** 10½" x 8½". 152 pp. 17s. 6d. net. By post 18s. 2d.



## THE COMPLETE AMATEUR PHOTOGRAPHER

by Dick Boer · Edited by A. L. M. Sowerby, B.A., M.Sc., F.R.P.S. (Second Edition)

This book enables the beginner to learn to make photographs of real merit, and is a valuable reference book for the more advanced photographic process at all stages—from selecting the subject to the finished print. Written by one of Europe's leading experts, the book is illustrated with 262 photographs, 28 diagrams and 8 pages of colour plates.

**Ready  
this  
month**  
8½" x 6"  
254 pp.  
21s. net.  
By post  
21s. 8d.

Published for "Amateur Photographer," and obtainable from booksellers, photographic dealers or direct from, **ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1.**

# Brysal

MANUFACTURED BY — BRITISH ROPES LTD.

## Brysal Woven Floor Fabric

For hard wear and economy. Many colours; various widths. In use in schools, hospitals, offices and homes.

Sample and details from Main Distributors:

**ROSE, SALISBURY & COMPANY LTD.,**  
409, HOLLOWAY ROAD, LONDON, N.7. Telephone: NORTH 3162/1945.



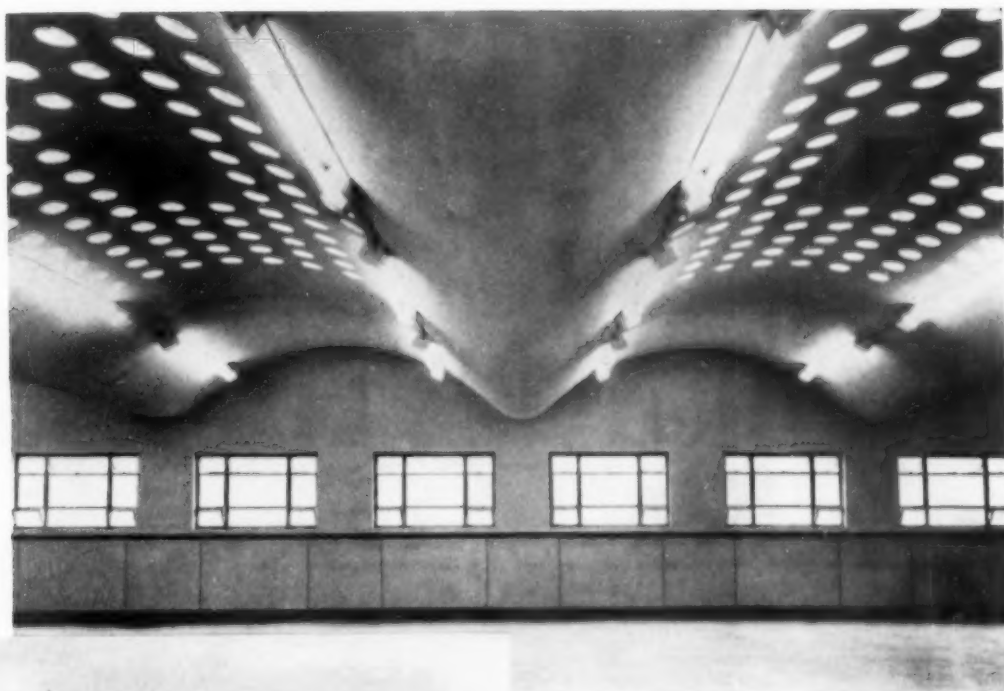
## INDEX TO ADVERTISERS

Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 40 and 41

Adamite Co., Ltd. .... 29	Crittall Man. Co., Ltd., The .. 26	Harlton Man. Co. .... 30	Radiation Group Sales, Ltd. .... 13
Allied Brick & Tile Works, Ltd., The .. 35	Crudens, Ltd. .... 32	Harvey, G. A., & Co., Ltd. .... 33	Robb's Cement Enamel .. 39
Associated Building Construction Developments (Raynes Park), Ltd. .... 10	Dunlop & Ranken, Ltd. .... 31	Haywards, Ltd. .... 31	Finishes, Ltd. .... 39
Atlas Stone Co., Ltd. .... 12	Duresco Products, Ltd. .... 34	Hilger & Watts, Ltd. .... 37	Roof Glass Cleaning Co., Ltd., The .. 31
Baume & Co., Ltd. .... 24	Eastwoods Sales, Ltd. .... 2	Hope, Henry, & Sons, Ltd. .... 21	Rose Salisbury .. 42
Blakey Cabinet & Metal Works, Ltd., The .. 32	Edison Swan Electric Co., Ltd., The .. 15	Jones, T. C., & Co., Ltd. .... 14	Rudkin, S. O., & Co., Ltd. .... 29
Bradford, F., & Co., Ltd. .... 32	Electrolux, Ltd. .... 39	Kinnear Shutters .. 29	Semtex, Ltd. .... 25
British Electrical Development Assoc. .... 27	Elliott, Samuel, & Son (Reading), Ltd. .... 36	Laing, John, & Son, Ltd. .... 30	Siemens Supplies, Ltd. .... 22
Buckwyn Construction, Ltd. .... 36	Ellis School of Architecture .. 30	Lawrence, Walter, & Son, Ltd. .... 6	Smart & Brown (Engineers), Ltd. .... 37
Cable Makers' Assoc. .... 3	Engert & Rolfe, Ltd. .... 18	Light Steelwork (1925), Ltd. .... 31	Soundproof Construction .. 30
Cafferata & Co., Ltd. .... 30	Expanded Metal Co., Ltd., The .. 30	Luke & Co. .... 29	Spencer Lock & Co., Ltd. .... 31
Celcon, Ltd. .... 9	Ferranti, Ltd. .... 32	Margolis, M. .... 31	Stanley, W. F., & Co., Ltd. .... 36
Celotex, Ltd. .... 7	Fibreglass, Ltd. .... 23	Minter, F. G., Ltd. .... 5	Steven, A. & P., Ltd. .... 31
Central Office of Information (Ordnance Survey) .. 34	Finnish Lion Board .. 31	Molesley Sheet Metal Works .. 29	Surflex Flooring Co. .... 34
Compactum, Ltd. .... 24	Gardner, T., & Co., Ltd. .... 31	Mullen & Lumsden, Ltd. .... 29	Sussex Cement & Concrete Products .. 31
Churchouse, C. M., Ltd. .... 33	Gas Council .. 8	Normid, Ltd. .... 38	Teleflex Products, Ltd. .... 38
Clarke Ellard Engineering Co., Ltd. .... 4	General Electric Co., Ltd., The .. 11	Penfold Fencing & Engineering Ltd. .... 35	Troughton & Young (Lighting), Ltd. .... 16
Coverite (Asphaltes), Ltd. .... 31	Gibson, Arthur, L., & Co., Ltd. .... 29	Photograms of the Year (Iliffe) .. 42	True Flue, Ltd. .... 31
Cozens Ventilators, Ltd. .... 31	Gliksten, J., & Co., Ltd. .... 38	Pilkington Bros., Ltd. .... 20	Turners Asbestos Cement Co., Ltd. .... 19
	Gray, J. W., & Co., Ltd. .... 31		Williams & Williams, Ltd. .... 1
	Greenwood & Airvac Ventilating Co., Ltd. .... 17		Vardale Fencing Co., Ltd. .... 31
			Vulcanite, Ltd. .... 31

Printed in Great Britain for the publishers, ILIFFE AND SONS LTD., Dorset House, Stamford Street, London, S.E.1, by CORNWALL PRESS LTD., Paris Garden Stamford Street, London, S.E.1.

## More space...more light



ABOVE:

*Shows the regular lighting and the clear surface of the interior of the Bradford Barrel Vault roof.*



LEFT:

*Shows finished outside appearance. The Barrel Vault principle is also used for single barrel or North light types of construction.*

Bradfords are specialists in all types of shell concrete construction for roofing. The advantages are many; great economy in erection and in upkeep, high resistance to fire, and not least, the fact that the interior surface is smooth and unbroken by members, thus allowing the highest lighting efficiency and permitting no lodgement for dust. The absence of supporting pillars provides absolutely clear floor space.

## BRADFORDS

FOR CONCRETE DESIGN & CONSTRUCTION

*Other specialities:*

HOLLOW-BLOCK FLOORS

CAST STONE

GRANOLITHIC PAVING

STAIRCASES

PRE-CAST CONCRETE FLOORS

PRE-CAST CONCRETE UNITS



## 8-storey flats at Sullivan Court, Fulham

FOR THE METROPOLITAN BOROUGH OF FULHAM

This estate is planned to provide 440 flats of varying sizes in 19 blocks of heights from three to eight storeys and will include shops, gardens and playgrounds.

Architect: *Director of Housing and Public Buildings, Fulham,*  
*J. Pritchard Lovell, L.R.I.B.A., F.I.Arb., P.P.I.Hsg.*

**LAING**

JOHN LAING AND SON LIMITED • GREAT BRITAIN, CANADA, UNION OF SOUTH AFRICA, RHODESIA